Return of

Wrecks and Casualties

in Indian Waters

1884-1885

00134705

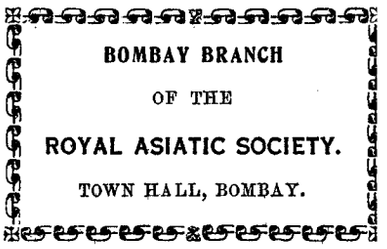

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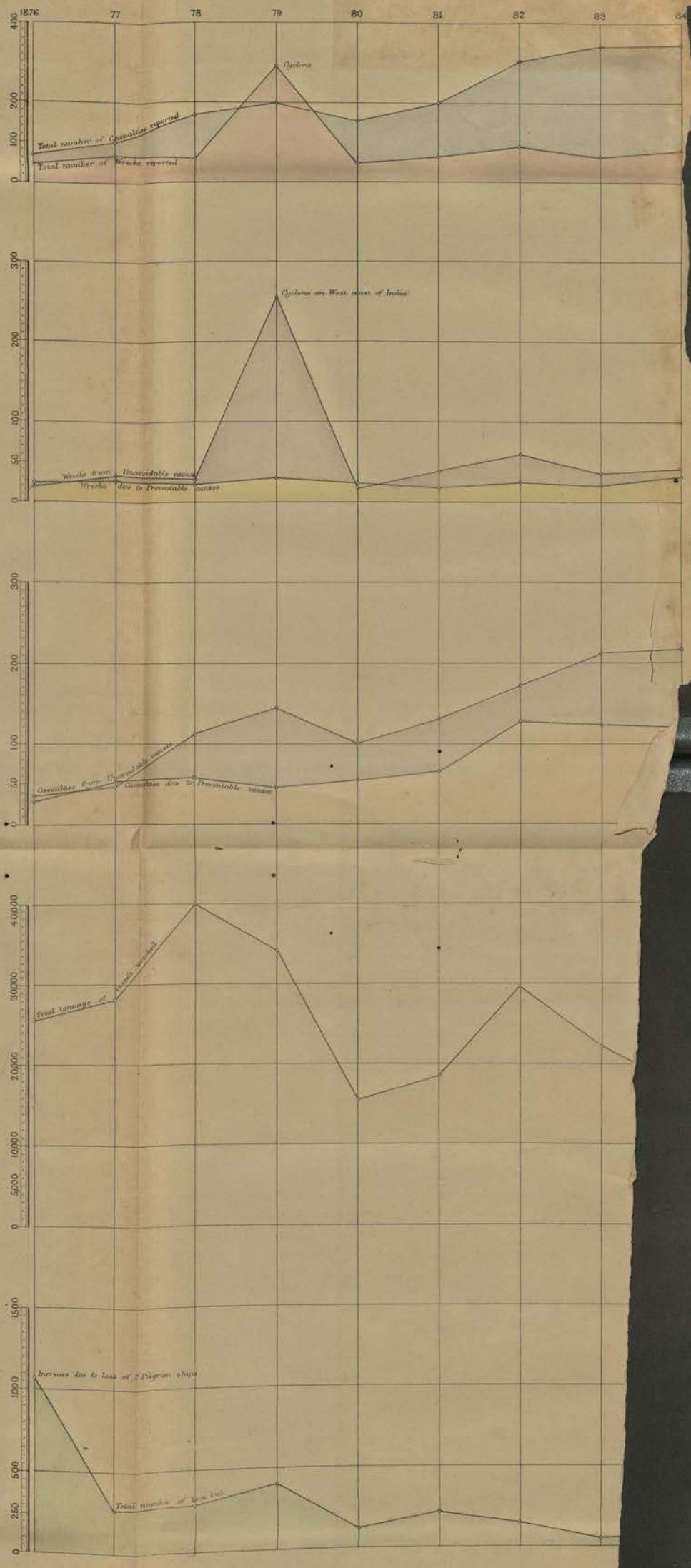
DIAGRAM.

Shewing comparative numbers of Wrecks and Casualties, total tonnage, and the number of lives lost, reported to the Indian Wreck Department, Calcutta, from the years 1876 to 1884 inclusive.



Lithographed at the Survey of India Offices, Calcutta, April 1885

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REVIEW.

In this report are included all wrecks and casualties reported to the Port Office, Calcutta, on the coast from the Red Sea below Jiddah to Penang and at sea as far South as the Equator. It is believed that other casualties, more especially among Native craft, occur, which are not reported to this office. It is also optional for foreign vessels to give notice of casualties happening out of India. The Indian Wreck Return was first submitted to Government in the year 1865 by the Master Attendant's Department, Calcutta; from 1876 to 1881 it was transferred to, and prepared by, the Marine Survey Department of India; since 1882 it has been re-transferred to this office.

2. During the year 1884 there were reported 7 wrecks of British vessels, 2 French, 1 Norwegian, 1 Italian, 1 Russian, 1 American, 2 Chinese, 1 Cingalese, 3 Portuguese Native, 1 British Burman, 47 British Indian, and 12 Native craft,—or a total of 79 ships of 17,109 tons, and a loss of 73 lives. There were 199 casualties to British vessels, 7 French, 2 Norwegian, 2 Dutch, 1 Swedish, 1 Austrian, 8 German, 6 Italian, 6 American, 2 African, 2 Arabian, 3 Cingalese, 2 Malayan, 2 British Burman, 1 Burman, 85 British Indian, and 10 Native craft,—or a total of 339 ships, and a loss of 5 lives.

3. When compared with the year 1883, this shows an increase of 14 in the number of wrecks, an increase of 3 in the number of casualties, and an increase of 15 in the number of lives lost.

4. Three cases of total loss by fire occurred during the year; one—the Italian ship *Emma C.*—by spontaneous combustion; the origin of the fire in the other two cases,—the American ship *Aurora* and the Native ganja *Harsingar*—was not stated, but in the latter case, might possibly have been due to some embers from the galley that was close to the bales having fallen down and set them on fire. The amount of damage to the *Aurora* was estimated at £10,000; that to her cargo ₹1,28,354. The *Emma C.* was valued at £11,000; the damage to the cargo was £520. The value of damage to the *Harsingar* was ₹9,000; cargo, ₹12,600.

5. The cases of damage by fire during the year were slight, the most serious being that sustained by the British ship *Centurion* (when at anchor at No. 6 Hastings' moorings, third berth, Hooghly river, loading a general cargo for Havre), the cause of which was not known. Value of damage to the steamer, ₹3,500; cargo, ₹13,400. The British screw steamer *Joseph Ferrens* (whilst on her homeward voyage from Madras) ran short of coals when 120 miles to the westward of Cape Guardafui, and was consequently obliged to burn ship's fittings and a large quantity of the cargo. The amount of damage to the steamer was valued at £250, and the cargo at ₹2,400. A fire also took place on board the British screw steamer *Chanda* in Bombay harbour. It was reported that the fire emanated from a case consigned to Tellicherry, which consisted of dates and dry fruits, and a large bundle of rockets, together with a tin box containing a small bottle of acid, which had evidently burst and ignited. Both wings of the main 'tween deck and the orlop deck were burned and charred; estimated value not reported. Of the cargo about 40 packages were damaged, value not stated. The British steamer *Darlington,* lying at No. 2 Calcutta moorings in the Hooghly river, ready to load a cargo for Maulmain, took fire. The amount of damage to the steamer, value ₹1,000. The origin of the fire was not known.

6. The chart again exhibits a further increase in the number of collisions; it will be seen that they were principally caused by the carelessness of the masters in charge, but in 35 instances the collision was unavoidable.

7. The following analyses show (A) the causes to which the disasters are to be attributed; (B) the general localities in which the wrecks and casualties occurred; (C) the number of reported wrecks and casualties in each month of the year 1884, the total tonnage of vessels wrecked, and the number of lives lost; (D) the number of wrecks and casualties recorded in the Indian Wreck Department from the years 1879 to 1884, showing respectively British vessels, British Indian vessels, and Native craft; (E) the reported number of wrecks and casualties in Indian Waters, the total tonnage of vessels wrecked, and the number of lives lost during the years 1865 to 1884 inclusive.

A.—*Causes to which the disasters are to be attributed.*

STRANDINGS.

	Carelessness of master.	Cyclone.	Currents.	To prevent foundering.	Heavy weather.	Stress of weather.	Defective cables.	Bad caulking.
WRECKS.								
British and Foreign	7	1	...	...	...	...	1	...
British Indian and Native Craft	7	1	2	3	14	3	2	...
CASUALTIES.								
British and Foreign	3	...	...	...	...	...	...	...
British Indian and Native Craft	...	...	1	...	...	...	2	1

GROUNDINGS.

	Carelessness of master.	Carelessness of pilot.	Carelessness of assistant harbour master.	Carelessness of crew of boat.	Carelessness of second officer.	Tides and currents.	Incorrect charts.	Cyclone.	Heavy weather.	Stress of weather.	Fogs.	Haze.	Eddy-tide.	Unavoidable.
WRECKS.														
British and Foreign	...	...	...	...	...	...	...	...	...	...	...	...	...	...
British Indian and Native Craft	1	...	...	...	...	...	...	...	...	...	...	...	...	...
CASUALTIES.														
British and Foreign	8	14	2	1	1	1	3	3	1	1	1	...	2	46
British Indian and Native Craft	11	...	...	...	...	1	...	1	8	6	...	1	1	3

COLLISIONS.

	Carelessness of master.	Carelessness of pilot.	Carelessness of engineer.	Carelessness of second officer.	Carelessness of third officer.	Carelessness of assistant harbour master.	Carelessness of crew of boat.	Tides and currents.	Eddy-tide.	Not exhibiting lights.	Heavy weather.	Stress of weather.	Unavoidable.
WRECKS.													
British and Foreign	..	...	...	...	...	...	...	...	...	...	...	...	...
British Indian and Native Craft	1	...	...	1	...	...	...	...	...	...	...	...	2
CASUALTIES.													
British and Foreign	21	5	1	...	1	9	8	7	6	1	1	2	29
British Indian and Native Craft	8	...	...	...	1	...	...	...	...	1	2	...	6

A.—*Causes to which the disasters are to be attributed*—continued.

FOUNDERINGS.

	Carelessness of master.	Heavy weather.	Stress of weather.	Tides and currents.	Old and rotten.	Stranding.
WRECKS.						
British and Foreign	...	1	...	...	...	...
British Indian and Native Craft	5	5	3	...	3	1
CASUALTIES.						
British and Foreign	...	...	...	...	...	...
British Indian and Native Craft	4	...	2	1	...	...

MISCELLANEOUS.

	Fire—Carelessness of crew.	Fire—Insufficient coals on board.	Fire—Spontaneous combustion.	Fire—Unavoidable.	Fire—Not reported.	Sprung a leak—Carelessness of master.	Sprung a leak—Cyclone.	Sprung a leak—Heavy weather.	Sprung a leak—Old and rotten.	Sprung a leak—Stress of weather.	Sprung a leak—Heavy seas.	Sprung a leak—Bad stowage of cargo.	Sprung a leak—Defective caulking.	Sprung a leak—Unavoidable.	Sprung a leak—Not known.	Damage to hull—Cyclone.	Damage to hull—Heavy weather.	Damage to hull—Defective.
WRECKS.																		
British and Foreign	...	...	1	...	1	...	1	...	...	...	...	...	...	...	1	...	...	...
British Indian and Native Craft	1	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...
CASUALTIES.																		
British and Foreign	...	1	...	1	2	...	1	...	...	...	...	...	...	1	1	1	1	1
British Indian and Native Craft	...	...	...	...	...	3	1	9	1	1	1	1	1	2	...	...	...	...

MISCELLANEOUS—(*continued.*)

	Loss of masts, sails, &c.—Cyclone.	Loss of masts, sails, &c.—Heavy weather.	Damage to engines—Cyclone.	Damage to engines—Heavy weather.	Damage to engines—Stress of weather.	Damage to engines—Carelessness of engineer.	Damage to engines—Not reported.	Damage to engines—Unavoidable.	Loss of anchors and chains—Carelessness of assistant harbour master	Loss of anchors and chains—Defective chains.	Loss of anchors and chains—Unavoidable.	Capsized—Heavy weather.	Capsized—Tides.	Capsized—Stress of weather.	Capsized—Carelessness of master.	Capsized—Overladen.	Slight casualty—Cyclone.	TOTAL.
WRECES.																		
British and Foreign	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16
British Indian and Native Craft	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	63
CASUALTIES.																		
British and Foreign	...	1	3	4	2	1	10	7	1	3	14	...	...	...	...	...	2	236
British Indian and Native Craft	...	2	...	...	...	...	...	2	...	...	...	4	2	7	4	1	...	103

B.—*General localities in which the Wrecks and Casualties occurred.*

	Red Sea.	Gulf of Aden.	South coast of Arabia.	Persian Gulf.	Arabian Sea.	Sind coast.	Gulf of Cutch.	Káthiáwár coast.	Gulf of Cambay.	Bombay coast.	Portuguese Territory.	Malabár coast.	Indian Ocean.	Maldives.	Ceylon coast.	Gulf of Manár.	Coromandel coast.	Madras coast.	Orissa coast.	Hooghly river.	Sandheads.	Sunderbuns.	Chittagong coast.	Burma coast.	Malay Peninsula.	Andamans.	Nicobars.	Malacca Straits.	Bay of Bengal.	TOTAL.
WRECKS.																														
British and Foreign	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	2	...	1	1	1	...	1	...	2	1	...	1	...	3	16
British Indian and Native Craft	...	...	...	...	...	4	...	4	12	10	1	15	...	...	1	...	4	...	...	1	...	9	1	1	...	...	...	...	...	63
CASUALTIES.																														
British and Foreign	8	5	3	5	9	2	...	...	1	14	...	1	4	2	1	2	1	3	2	105	8	...	15	41	...	2	...	...	2	236
British Indian and Native Craft	...	2	...	...	...	2	1	1	19	34	...	6	...	...	...	14	1	...	...	1	...	4	8	5	...	...	2	1	1	103

C.—*The number of reported Wrecks and Casualties in Indian Waters during the year 1884, the total tonnage of vessels wrecked, and the number of lives lost.*

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Number of Wrecks	4	2	6	8	13	3	1	9	7	11	11	4	79
Number of Casualties	27	44	37	22	40	22	23	30	27	29	25	13	339
Total tonnage of vessels wrecked	143	1,862	1,913	2,389	2,230	2,173	462	592*	910	988	1,716	1,731	17,109
Lives lost	5	1	9	1	3	3	...	14	2	...	40	...	78

* Tonnage of the *Mahadevaprasad* not reported, and is therefore not included.

D.—*Comparative Statement of Wrecks and Casualties recorded in the Indian Wreck Department, from the years 1879 to 1884, shewing respectively British vessels, British Indian vessels, and Native Craft.*

YEAR.	WRECKS.							CASUALTIES.						
	BRITISH VESSELS.*		BRITISH INDIAN VESSELS.		NATIVE CRAFT.		TOTAL.	BRITISH VESSELS*		BRITISH INDIAN VESSELS.		NATIVE CRAFT.		TOTAL.
	Unavoidable.	Preventable.	Unavoidable.	Preventable.	Unavoidable.	Preventable.		Unavoidable.	Preventable.	Unavoidable.	Preventable.	Unavoidable.	Preventable.	
1879.	11	11	176	18	68	5	289	76	35	58	10	11	2	192
1880.	2	11	15	12	7	3	50	90	47	9	5	4	1	156
1881.	6	9	28	9	8	3	63	97	49	29	14	5	2	196
1882.	9	18	39	6	13	5	90	119	98	45	33	8	...	303
1883.	5	10	22	10	12	6	65	148	88	57	29	9	5	336
1884.	6	7	26	22	11	7	79	153	83	50	34	14	5	339

* Including European vessels.

E.—*Comparative Statement shewing the reported number of Wrecks and Casualties in Indian Waters, the total tonnage of vessels wrecked, and the number of lives lost, from 1865 to 1884.*

Year.	Number of wrecks and casualties.	Total tonnage lost.	Lives lost.	Remarks.
1865	28	14,443	6	
1866	32	15,597	35	
1867	37	17,417	49	
1868	20	12,558	19	
1869	55	25,688	279	
1870	44	14,809	51	
1871	47	18,294	118	
1872	106	34,238	143	Exclusive of four vessels supposed to have been lost.
1873	42	12,110	3	
1874	69	16,656	85	
1875	62	11,193	65	
1876	110	23,866	96	Does not include the 400 pilgrims lost in the *Hydree* and 428 in the *Javad*, both wrecked in the Red Sea.
1877	163	26,847	142	Not including the master and crew of the *Anadne*, and the *Coda Bux*, supposed to have foundered.
1878	228	35,873	131	Not including the master and crew of the *Lady Rawlinson*, supposed to have foundered, and also of the *Fattel Carim*, *Futtay Rozack*, *Lady Amherst*, and *William Stevenson*. The tonnage of the *Queenstown*, *City of Palaces*, *Fattel Carim*, *Futtay Rozack*, *Lady Amherst*, and *William Stevenson* was not reported, and is therefore not included.
1879	481	32,541	357	The number lost in the *Essex* was not reported.
1880	206	15,662	120	
1881	259	17,814	186	Does not include the missing ship *Nebo*.
1882	393	29,272	155	
1883	401	21,760	62	
1884	418	17,109	78	

8. A diagram showing the reported number of wrecks and casualties, the total tonnage of vessels wrecked, and the number of lives lost, from the years 1876 to 1884, inclusive, is appended in the Return.

9. From the foregoing it will be seen that during the past 20 years (1865 to 1884 inclusive) the annual average number of the reported wrecks and casualties in Indian Waters has been 160, the average total tonnage lost was 20,687, and the number of lives lost 109.

ARTHUR W. STIFFE, *Captain, I. M.*,
Port Officer and Registrar of Wrecks.

PORT OFFICE,
Calcutta, 27th February 188

TABULAR STATEMENT OF THE WRECKS,

ARRANGED IN THE ORDER IN WHICH THEY OCCURRED.

Number.	Name of Vessel.	Tonnage.	Flag and rig of vessel.	Date of wreck.	Whence bound.	Whither bound.	Cargo and its total value.
1	*Mamoodi*	110	British Indian dingy	1st January	Bhávnagar	Kurrachee	In ballast
2	*Narainpersád*	15	British Indian pattimar	17th do.	Jaygad	Calicut	Salt; value ₹ 1,980
3	*Khatau Passa*	9	Native craft	Do. do.	Verával	Jáfarabad	None
4	*Sakria*	9	Portuguese Native craft	27th do.	Shimar	Diu	None
5	*Ruparel*	4	British Indian muchwa	4th February	Broach	Dholera	Gunny bags; value ₹ 300.
6	*Aurora*	1,858	American ship	20th do.	New York	Calcutta	59,334 cases of kerosine oil; valued at ₹ 2,10,000.
7	*Laxumee*	52	British Indian craft	2nd March	Anjanvel	Bombay	Ground nuts; value ₹ 7,055.
8	*Emma, C*	1,174	Italian ship	5th do.	Shields	Rangoon	Coals; value £520
9	*Hasalar Rohman*	143	British Indian brig	15th do.	Akyab	Chittagong	Paddy, &c.; value not reported
10	*Harsingar*	110	Native ganja	27th do.	Kurrachee	Bombay	Cotton and wool; value ₹ 14,000.
11	*Toolshiprasád*	27	British Indian padow	Do. do.	Damán	Cambay	Bamboos and teak-wood; value ₹ 1,066.
12	*Asie Mineure* (See Casualties No. 106)	407	British Indian barque	30th do.	Balasore and Cochin.	Calicut	Rice; value ₹ 48,000
13	*Malacca*	460	French barque	6th April	Chittagong	Calcutta	In stone ballast
14	*Ratnagiri*	50	British Indian battalla	13th do.	Bombay	Goa	Cement in casks; valued at ₹3,500.
15	*Dhanaprasad*	51	Do. do.	17th do.	Umbargaon	Cambay	Sagli-wood; value ₹1,504.
16	*Soundaravully*	90	British Indian brig	21st do.	Pondicherry	Madras	720 bags of bones; value not stated.
17	*Abdul Rhyman Hydrose*	200	British Indian schooner	22nd do.	Cochin	Pooar	Paddy and rice; value not given.
18	*Peer Prasad*	39	Native ganja	27th do.	Trombay	Molky	Salt; value ₹3,246
19	*Laxmiprasad*	9	British Indian padow	Do. do.	Murbád	Bombay	Firewood; value ₹150.
20	*Riversdale*	1,490	British ship	29th do.	Madras	Vizagapatam	Jaggery, turmeric and red-wood; valued at £6,947.
21	*Gajo Mahal*	110	British Indian kotia	12th May	Mangrol	Bombay	Cotton, turmeric and castor-oil seeds; value ₹7,800.
22	*Daria Dowlat*	15	British Indian padow	13th do.	Gogha	Ditto	Woollen blankets and cotton yarn; valued at ₹7,550.
23	*Teep*	38	Native craft	15th do.	Keti bandar	Cutch Mándvi	Firewood; value ₹150
24	*Ramban*	130	British Indian ganja	Do. do.	Calicut	Bombay	Bamboo blinds; value ₹484.
25	*Ratan Prasad*	50	British Indian padow	Do. do.	Bhávnagar	Ditto	Cotton; value ₹22,856.
26	*Iphigenia*	274	Norwegian barque	Do. do.	Calcutta	Algoa Bay	Rice and gunnies; value ₹65,000.
27	*Buston Vale*	412	British barque	17th do	Mauritius	Maulmain	In stone ballast
28	*Khutowpersad*	21	Native craft	Do. do.	Keti bandar	Mundra	Rice, bajree, and ghee; value ₹1,567.
29	*Alexander*	692	Russian ship	Do. do.	Akyab	Falmouth	924 tons rice; value £ 6,009.
30	*Vedasundraletchumy*	53	British Indian schooner	Do. do.	Colombo	Jaffna	Iron, rice, gram, &c.; value ₹2,525.

Waters during the year 1884.

Position of wreck and name of shoal, &c.	General locality where wreck occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
A little above the mouth of the Kotia-khadi creek in the Bhávnagar river.	Gulf of Cambay	Foundering. Carelessness of the tindal	None lost	.....
About 10 miles N.W. of Vengurla	Bombay coast	Ditto. Old and rotten	Ditto	Totally lost.
On the Rakhiádhár rock, lying about 500 feet outside the Mahuva harbour.	Káthiáwar coast	Stranding. Gale	Five lost	.....
Near the Rakhiádhár rock off the Mahuva harbour	Ditto	Foundering. Old and rotten	None lost	.....
Near a sand-bank off Dholera	Gulf of Cambay	Ditto. Carelessness of the tindal	Ditto	Totally lost.
At Matea-bruj, just below the King of Oudh's palace.	Hooghly river	Fire. Unknown	Ditto	Partially lost; value ₹ 1,28,354.
On a sand-bank close to the bar buoy at the entrance to Anjanvel port.	Bombay coast	Stranding. Carelessness of the tindal	Ditto	₹6,355 worth was lost and ₹700 damaged.
In latitude 6° N., longitude 90° E.	Indian ocean	Fire. Spontaneous combustion	Ditto	Totally lost.
About 15 miles South of Cox's Bazar	Chittagong coast	Sprung a leak. Bad caulking	Ditto	₹250 worth was lost and the remainder were saved.
On the southern bank of the river, off the Native Jetty, Kurrachee harbour.	Sind coast	Fire. Carelessness of the crew	Ditto	₹12,000 worth was lost and ₹600 damaged.
On a sand-bank off the Dhádhar river	Gulf of Cambay	Stranding. Heavy weather	Five lost	Totally lost.
Off Chowghât or Palm river, about 17 miles S.E. of Ponáni port, in latitude 10° 31′ N., longitude 75° 55′ E.	Malabár coast	Collision with S S. *Nerbudda*. Carelessness of the second officer of the steamer.	Four lost	Ditto.
About 20 miles S S.W. of the D'Apres shoal	Sunderbuns	Stranding. Carelessness of the master	None lost	.....
On the rocks to the southward of Kundari island fort.	Bombay coast	Ditto. Carelessness of the tindal	Ditto	Totally lost.
On the bar at the entrance to the Dhádhar river.	Gulf of Cambay	Ditto. Heavy weather	Ditto	Ditto.
On shore in the North roadstead of Madras	Coromandel coast	Ditto. Ditto	Ditto	Partially lost, value ₹190.
On the beach near the Chauki (a Police post) at Trivandrum.	Malabár coast	Ditto. Carelessness of the tindal	Ditto	.....
Near a rock, about 2 miles off Padubidre Kadiapatnam.	Ditto	Foundering. Stranding	Ditto	Totally lost.
About 2 miles seaward of Utan, Bombay harbour	Bombay coast	Ditto. Old and rotten	Ditto	Ditto.
About 14 miles S.W. of Point Divi lighthouse, and 2 miles off the beach forming the delta of the Kristna river.	Madras coast	Stranding. Carelessness of the master	Ditto	Partially lost, value £148.
On the beach, about 2 miles from Chorvad	Káthiáwár coast	Capsized. Heavy weather	Ditto	Totally lost.
Near the Piram lighthouse	Gulf of Cambay	Foundering. Carelessness of the tindal	Ditto	₹6,253 worth was lost.
Outside the Khubeer river mouth of the Indus	Sind coast	Ditto. Stress of weather	One lost	Totally lost.
On shore at Valiangad	Malabár coast	Stranding. To prevent foundering	None lost	₹284 worth was lost and ₹200 damaged.
On shore near Wasee off the Púrna river	Gulf of Cambay	Ditto. Stress of weather	Ditto	₹5,200 worth was lost and the remainder damaged.
In latitude 12° 02′ N., longitude 96° 20′ E.	Bay of Bengal	Sprung a leak. Cyclone	Ditto	Partially lost; value ₹1,580.
In latitude 17° 23′ N., longitude 91° 28′ E.	Ditto.	Loss of masts, &c. Cyclone	Ditto	.....
Outside the Keti river mouth of the Indus	Sind coast	Foundering. Stress of weather	Ditto	Totally lost.
On shore between Marine creek and Fakir point, Akyab or Arakan harbour.	Burma coast	Stranding. Cyclone	Ditto	Partially lost; value ₹21,732.
On the beach, 4½ miles S.W.byW. of Rámesvaram village.	Gulf of Manár	Ditto. Carelessness of the tindal	Ditto	₹2,265 worth was lost and the remainder was damaged.

Number.	Name of Vessel.	Tonnage.	Flag and rig of vessel.	Date of wreck.	Whence bound.	Whither bound.	Cargo and its total value.
31	*Fattemubarakha*	14	British Indian craft	18th May	Gogha	Bhagvá	Cattle; value ₹75
32	*Dariádoulat*	8	British Indian muchwa	26th do.	Broach	Gogha	In ballast
33	*Annie Braginton*	413	British barque	30th do.	Gopalpur	Cochin	115 tons of rice; value ₹8,000.
34	*Galatia*	2,014	British screw steamer	18th June	Calcutta	Bombay *viá* Tuticorin.	General; value £50,000
35	*Dowlatprasad*	88	Native ganja	20th do.	Bombay	Mundra	Rice, iron, &c.; value ₹4,595.
36	*Mowla Bux*	71	British Indian schooner	23rd do.	Narainganj	Chittagong	Jute, &c.; value ₹6,000
37	*Madras*	462	British screw steamer	11th July	Calcutta	Penang *viá* Burman and Malayan coast ports.	General; value ₹20,000
38	*Reliance*	217	British Indian steamer	12th August	Ditto	Chittagong	240 tons coals; value ₹2,031.
39	*Godavriprasad*	16	British Indian padow	16th do.	Bhagvá	Bulsár	Firewood; value, ₹196
40	*Mahadevaprasad*	Not reported	British Indian pattimar	26th do.	Málvan	Báliapatnam	In ballast
41	*Húriprasad*	86	Native padow	27th do.	Calicut	Bombay	Cocoanuts; value ₹3,400.
42	*Jairam Pussa*	85	Native battalla	Do. do.	Bet	Calicut	In ballast
43	*Sugal Pussa*	7	British Indian ganja	28th do.	Bombay	Cochin	Empty wooden casks; value not reported.
44	*Arabella*	112	Native kotia	Do. do.	Porbandar	Ditto	White stone slabs; value not given.
45	*Naran Pussa*	48	Native battalla	29th do.	Cutch Mándvi	Calicut	In ballast
46	*Yeshwanti*	21	British Indian pattimar	Do. do.	Tanúr	Bombay	Cocoanuts; value not stated.
47	*Laxmi*	18	British Indian mahangíri	7th September	Kalyán	Ditto	Bricks; value ₹8,000
48	*Ratnagiri*	56	British Indian battalla	8th do.	Broach	Bilimora	In ballast
49	*Daria Dowlut*	59	British Indian craft	Do. do.	Ditto	Calicut	Ditto
50	*Lakhmipashá*	35	British Indian padow	9th do.	Porbandar	Bombay	1,705 slabs of stones; value ₹392.
51	*Mahadeo Prasad*	28	British Indian dingy	20th do.	Ditto	Surat	Slabs of stones; value ₹150.
52	*Punjaub*	685	British screw steamer	26th do.	Bombay	Kurrachee *viá* coast ports.	General; value ₹3,86,129.
53	*Putton*	29	British Indian dingy	Do. do.	Kurrachee	Keti bandar	General; value ₹1,000.
54	*St. Antonio* (See Casualties No. 280)	11	Portuguese Native padow	9th October.	Goa	Vengurla	Cocoanuts; value ₹440
55	*Varulu*	140	British Indian schooner	14th do.	Narainganj	Chittagong	Jute; value ₹7,620
56	*Kim Guan Huat*	65	Chinese schooner	Do. do.	Tavoy	Penang	Rice; value not reported.
57	*Mohomed Bunder*	124	British Indian dhoney	16th do.	Pondicherry	Colombo	Bones; value ₹3,000
58	*Santhanayagee Thirsomany Alagar.*	141	British Indian brig	Do. do.	Cocanada	Negapatam	Grain; value ₹6,000
59	*Mahaletchumi*	96	British Indian dhoney	Do. do.	Ipurupálem	Madras	Casuarina-wood; value ₹750.
60	*Heerapresad*	28	Portuguese Native battalla	17th do.	Ponáni	Broach	Cocoanuts; value ₹1,172.
61	*Hurry Pursaud*	30	Native battalla	Do. do.	Cochin	Bhávnagar	Coir and mango-wood planks; value ₹5,500.

Waters during the year 1884—continued.

Position of wreck and name of shoal, &c.	General locality where wreck occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
On a sand-bank near the Bhagvádándi light-house.	Gulf of Cambay .	Stranding. Stress of weather . .	None lost .	Totally lost.
On a sand-bank, 6 miles to the West of the entrance to the Narbada river.	Ditto .	Ditto. Heavy weather . .	Ditto .	.....
On the beach near the mouth of the Balasore river, about 1½ miles N.byW.½W. from Chandipur flagstaff, Balasore roads.	Orissa coast . .	Ditto. Defective cables . .	Ditto .	Partially lost; value ₹2,775.
Inside the Tuticorin anchorage in 28 feet of water, the lighthouse bearing W.¾S, distant 1½ miles.	Gulf of Manár .	Sprung a leak. Not known . .	Three lost .	Partially lost; value not known.
On the sands at Kolsee bandar in the Basseen creek.	Bombay coast .	Stranding. Heavy weather . .	None lost .	₹3,832 worth was lost.
Off the Mohinda chur in the Bamnee river mouth of the Megna.	Sunderbuns . .	Foundering. Ditto . .	Ditto .	Partially lost; value ₹3,500.
On a reef, 3 miles to the southward of the Canister island, Forrest strait, in latitude 10° 46′ 15″N., longitude 98° 28′ 0″ E., Mergui Archipelago.	Burma coast . .	Stranding. Carelessness of the master	Ditto .	Totally lost.
N.E. of the Bishop's College sand, below Shalimar point.	Hooghly river .	Collision with the No. 14 swinging buoy. Unavoidable.	Ditto .	Ditto.
Near the entrance to the Navsári creek .	Gulf of Cambay .	Foundering. Heavy weather . .	Ditto .	Ditto.
In the Báliapatnam river	Malabár coast .	Sprung a leak. Old and rotten . .	Seven lost .	.....
On shore off Mattool about 2½ miles South of Mount Dilly.	Ditto . .	Stranding. Heavy weather . .	None lost .	₹2,750 worth was lost and the remainder damaged.
On shore near the new mouth of the Mangalore harbour	Ditto . .	Ditto. Stress of weather . .	Ditto .	.....
On shore at Tonsee near Udipi . . .	Ditto . .	Ditto. Heavy weather . .	Ditto .	Totally lost.
On the rocks abreast the Arambhol shore near Goa.	Portuguese territory	Ditto. Ditto . .	Six lost .	Ditto.
On the beach, 200 yards N.N.W. of the lighthouse, Calicut roadstead.	Malabár coast .	Ditto. Defective ground tackle .	None lost .	.....
On the beach, 200 yards South of the old Custom-house, Calicut roadstead.	Ditto .	Ditto. Ditto .	Ditto .	₹800 worth was lost.
Half a mile off the landing place at Trombay, Bombay harbour.	Bombay coast . .	Foundering. Heavy weather . .	Ditto .	₹100 worth was lost.
On a sand bank, 4 miles South of the Piram island lighthouse.	Gulf of Cambay .	Stranding. Ditto . .	Two lost .	.....
On shore, 2 miles South of the Tápti or Surat lighthouse.	Ditto .	Ditto. Currents . . .	None lost .	.....
On the sands at Adri, near the port of Verával	Káthiáwár coast .	Ditto. Heavy weather . .	Ditto .	₹331 worth was lost.
On a rock at the mouth of the Wadhwán creek near Tárápur.	Bombay coast . .	Ditto. Ditto . .	Ditto .	Totally lost.
On the sands, about 5 miles S.S.W. of Jakáo.	Sind coast . .	Ditto. Carelessness of the master.	Ditto .	.....
On the sands, about 12 miles off the Seesha, mouth of the river Indus.	Ditto . .	Ditto. To prevent foundering.	Ditto .	Totally lost.
Between Redi and Vengurla.	Bombay coast . .	Collision with the S.S. *Washisti*. Unavoidable.	Ditto .	₹180 worth was lost.
On a chur near Mondoli point, in the Jalchira river, mouth of the Megna.	Sunderbuns . .	Stranding. Carelessness of the tindal.	Ditto .	Totally lost.
Off Pulo Cancava, midway between Junkseylon and Penang.	Malay Peninsula .	Foundering. Heavy weather . .	Ditto .	Ditto.
On the beach at Porto Novo, about half a mile North of the Northern boundary pillar.	Coromándel coast .	Stranding. Carelessness of the tindal.	Ditto .	Ditto.
On shore, nearly opposite the South boundary pillar in the Negapatam roadstead.	Ditto .	Ditto. Ditto .	Ditto .	Ditto.
On the North side of the harbour groynes in 12 fathoms of water, Madras roadstead.	Ditto .	Foundering. Heavy weather . .	Ditto .	Ditto.
Near the bar, at the entrance to the Cochin harbour.	Malabár coast .	Ditto. Carelessness of the tindal	Ditto .	Ditto.
Ditto ditto	Ditto . .	Ditto. Ditto .	Ditto . .	Ditto.

Number.	Name of Vessel.	Tonnage.	Flag and rig of vessel.	Date of wreck.	Whence bound.	Whither bound.	Cargo and its total value.
62	*Salamati*	20	British Indian dhoney	19th October	Mulpy	Honávar	27,000 cocoanuts; value ₹500.
63	*Gungasagar*	288	British Indian pattimar	23rd do.	Mora	Ponáni	Salt; value ₹8,000
64	*Hydroos Manji*	25	British Indian craft	26th do.	Kálai	Mangalore	Cocoanuts, plantains, &c.; value not reported.
65	*F. Moglyo*	167	British Indian schooner	1st November	Chittagong	Naraingan j	In ballast
66	*Umatara*	228	British Indian brig	Do. do.	Narainganj	Chittagong	Jute and in ballast; value ₹525.
67	*Hujinie*	55	British Indian schooner	Do. do.	Chittagong	Náraingan j	In ballast.
68	*Mymoonah*	182	British Indian brig	Do. do.	Narainganj	Chittagong	Jute and 10 shackles of chain; value ₹145.
69	*Guni Osman*	316	British Indian barque	Do. do.	Chittagong	Naraingan j	In ballast
70	*Hydroose*	164	British Indian brig	Do. do.	Ditto	Ditto	In stone ballast
71	*Hamider Rosool*	151	Do. do.	Do. do.	Ditto	Ditto	In ballast
72	*Fanny*	314	French barque	20th do.	Bourbon	Calcutta	Copper, hemp, twine, and hooks; value not reported.
73	*Shirawuttee* (See Casualties No. 324)	50	British Indian paddle steamer.	23rd do.	Dábhol	Goa	300 passengers, but no cargo.
74	*Ratnagiri*	28	British Indian padow	24th do.	Goa	Dholera	Cocoanuts; value ₹1,670.
75	*Amherstia*	61	British Burman schooner	29th do.	Rangoon	Maulmain	Kerosine oil, &c.; value ₹4,835.
76	*Mahadeopersad*	75	Native craft	2nd December	Cochin	Bombay	Copra oil, coir, &c.; value ₹262.
77	*Amaporanaletchemy*	84	Cingalese dhoney	22nd do.	Trinçomalie	Batticaloa	Salt and sundries, value not known.
78	*Raisby*	1,502	British screw steamer	25th do.	Hong Kong	New York	Tea, curios, silk and hair; valued at £30,000.
79	*Kim Huat Hin*	70	Chinese junk	30th do.	Penang	Nicobars	General; value not stated.

Waters during the year 1884—concluded.

Position of wreck and name of shoal, &c.	General locality where wreck occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
On shore off Tekkatti village near Kundapur.	Malabár coast	Stranding. Heavy weather	None lost	₹250 worth was lost.
Off the port of Beypore in 30 fathoms of water.	Ditto	Foundering. Ditto	Ditto	Partially lost; value ₹ 7,675.
On shore off the new mouth of the Mangalore harbour.	Ditto	Stranding. Carelessness of the tindal.	Ditto	₹120 worth was lost.
On Toom chur off the Jalchira river mouth of the Megna.	Sunderbuns	Ditto Heavy weather	Ditto	.....
On the Kuchiamara shoal in the river Megna	Ditto	Ditto. Ditto	Ditto	Totally lost.
Near Toom chur, river mouth of the Megna	Ditto	Capsized. Ditto	One lost	.....
On the sands at the mouth of the Bodu chur between Siddee and Bidou islands, river mouth of the Megna.	Ditto	Ditto. Ditto	Three lost	Totally lost.
On the sands at Mondoli tok in the Jalchira river mouth of the Megna.	Ditto	Ditto Ditto	Sixteen lost	.....
On the sands in the Jalchira river mouth of the Megna.	Ditto	Ditto Ditto	Eleven lost	.....
In the Sundeep channel between Siddee and Bidou, river mouth of the Megna.	Ditto	Ditto Ditto	Seven lost	.....
120 miles N.E. of Madras, in latitude 13° 30′ N., longitude 82° 0′ E.	Bay of Bengal	Loss of masts, &c. Cyclone	None lost	.....
About 2½ cables West of the Yeldur rock and 150 feet off the South shore, Dábhol or Wáshishti river.	Bombay coast	Collision with the steamer *Shastri*. Carelessness of the masters of both steamers.	One lost	.....
On a sand-bank in the Dholera creek	Gulf of Cambay	Grounding. Carelessness of the tindal.	None lost	Slightly damaged.
On the China Ba-keer sands, entrance to Rangoon river, Gulf of Martaban.	Burma coast	Stranding. To prevent foundering	One lost	Totally lost.
Off Amba bandar	Bombay coast	Foundering. Stress of weather	None lost	Ditto.
On the bar at the port of Batticaloa, East coast of Ceylon.	Ceylon coast	Stranding. Currents	Ditto	Partially lost; value not known.
On the Azalea reef in latitude 12° 38′ N., longitude 43° 26′ E., Small Straits of Perim.	Red sea	Ditto. Carelessness of the master	Ditto	Partially lost; value £ 5,000.
On a small coral reef about midway between the S.E. and the S.W. points of Little Nicobar island.	Nicobars	Ditto. Ditto	Ditto	Totally lost.

NOTES ACCOMPANYING THE WRECK STATEMENT FOR 1884.

JANUARY.

THE British Indian dingy MAMOODI [of Kurrachee, 110 tons register, official number 86], from Bhávnagar to Kurrachee in ballast. On the 1st January the dingy was proceeding out of the Bhávnagar creek (Gulf of Cambay), without the aid of a pilot at 1 P.M.; the boat then turned to the northward and subsequently struck on the rocks a little above the mouth of the Kotia-khádi creek. Assistance was given by other boats near by to save the dingy, but to no avail. She subsequently foundered in deep water. Loss, value of dingy, ₹4,000. No cargo on board. The crew, 13 men, jumped into the small gig belonging to the dingy and landed on shore safely. (It was reported that the disaster was attributable to the ignorance of the tindal as to the state of the creek; if he availed himself of the services of a pilot he would undoubtedly not have met with the accident.)

2. The British Indian pattimar NARAYANPERSÁD [of Ratnagiri, 15 tons register, official number 8063, age about 30 years], from Jaygad to Calicut, with a cargo of salt. On the 17th January the pattimar was proceeding on her voyage, when at 8 A.M. water all of a sudden found its way into her, and being very old, she rapidly filled with water and sank about 10 miles N.W. of Vengurla (Bombay coast). Loss, value of pattimar, ₹1,500; cargo ₹1,980. The crew, 8 men, got on board the toney belonging to the pattimar and safely came to shore.

3. The Native craft KHATAU PASSA [of Junágad, Gujarát, 9 tons register, no official number, age 20 years], from Veráwal to Jáfarabad, with 29 passengers but no cargo on board. She left Veráwal on the night of the 16th January, and had approached near her destination, when at 3 A.M. the next day, in consequence of a strong gale from N.W., she struck on the Rakhiádhár rock lying about 500 feet outside the Mahuva harbour (Káthiáwár coast) and immediately broke up. Value of craft, ₹500. The passengers' baggage was lost, value ₹637. Crew, 3 men, and 29 passengers; five were drowned, the remaining persons managed to ascend the rock, whence they were brought ashore in boats sent by the Mahuva bandar officials.

4. The Portuguese Native craft SAKRIA [of Gogha, Gujarát, 9 tons register, official number not reported, age 20 years], from Shimar to Diu, with one passenger but no cargo on board. The craft left Diu at 10 A.M. on the 27th January, and whilst on the way far off the Mahuva harbour (Káthiáwár coast) she sprung a leak owing to her being old and rotten; the water rushed in suddenly and violently, so much so that she rapidly filled, and foundered near the Rakhiádhár rock. Value of craft ₹100. Crew (3 men) and one passenger were all saved in boats sent from the shore.

FEBRUARY.

5. The British Indian muchwa RUPAREL [of Gogha, 4 tons register, official number 203, age 37 years], from Broach to Dholera, with a cargo of gunny bags. The tindal stated that he anchored the muchwa on the 4th February off Dholera, in the Gulf of Cambay. In the meantime the tide ebbed; when the flood made it washed away the sand from under her, consequently at 10 P.M. she rolled over on her side on to a sand-bank and foundered. Loss, value of muchwa, ₹250; cargo ₹300. The crew, 5 men, were washed

ashore. (The wreck was caused by the tindal having anchored the muchwa in too shallow water.)

6. The American wooden ship AURORA [of New York, 1858 tons register, official number 834, age 30 years, classed at American Veritas $^{5}/_{6}$ L.I.I.], from New York to Calcutta, with a cargo of 59,334 cases of kerosine oil, valued at R2,10,000. It appeared that the ship left New York on the 25th September and arrived on the 5th February at the Sandheads; after taking a pilot she proceeded up the Hooghly river in tow of the steam-tug *Defiance*. On the 7th the ship was moored by the assistant harbour master at Mateabruj just below the King of Oudh's palace. She was lying at Garden reach, and had discharged about 32,312 cases of her cargo. The master stated that between 4 and 5 o'clock on the morning of the 20th February when he awoke he found his cabin full of smoke, and immediately the alarm was given. The fire spread very rapidly, and the crew were so terrified that, fearing an explosion, they landed on shore as soon as possible with whatever of their effects they could make away with. By 6 o'clock, with their usual promptitude, the Police were on the spot with their engines, the Port Commissioners' river steamer fire-engine, the Deputy Conservator and some of the assistant harbour masters, and shortly afterwards the Vice-chairman arrived there. From the first it was hopeless to expect to save any portion of the cargo, 27,022 cases of oil. The fire broke out aft, and before very long the ship up to her foremast was a mass of fire. About 8 A.M. the masts fell, the mainmast falling at first slowly and gradually towards shore and then went down with a crash. Nothing could be done, as the falling spars made it impossible to take the fire-engine near the vessel; pumping water on board was useless; the vessel, being a wooden one and quite old, burnt very rapidly. The after-part of the vessel was completely gutted, and the whole ship from the foremast aft was a seething mass of flame, occasionally shooting up pillars of fire 50 to 60 feet above the vessel. Endeavours were made at ebb-tide to take her down in order to beach her on Akra sand, but the heat was so intense that it was impossible to get near the vessel, and nothing could be done but to keep her from getting adrift whilst the flood-tide made. The mainmast, with all the rigging attached to it, having fallen on the shore consequently kept her securely fastened to the shore. The stern fastenings had completely burned away, but the outer chain still hung over the vessel's side and helped to force her stern in shore. A little after 9 A.M. the foremast came down and the flames immediately burst out in the forecastle; she was then a mass of fire from stem to stern, and nothing could be done but to let it burn out. An hour afterwards the ebb-tide caused her to forge ahead a little down stream, and the mainmast, which had hitherto kept her off the bank, slipped down her side. The stern was forced in shore and the *Aurora* took the bank, and was hard and fast aground. Throughout the day the fire was so intense that hopes were entertained that there would not be much oil left in the vessel when the flood came in. By noon her decks and houses disappeared, and from end to end she was a seething cauldron of flame, whilst above dense billows of black smoke rolled softly away over the southern portion of the town of Calcutta. About midships her sides were burnt down to a foot from the water's edge, and alarm was felt lest she should break in half and float up the river towards the town with the tide. During the forenoon a wire hawser was passed round her from shore to shore. It was then attempted to sink her, and the floating fire-engine was towed alongside and kept by a launch ahead at the proper distance from the wreck. Clouds of steam now rose mingling with the black smoke and spreading over the flame like a soft gauze, the black ruins showed amidships where the water beat the flames down; and from the shore one could look over and into the vessel's hold. Her sides were burnt almost to the water's edge, and slowly the figures marked on her

cut-water sank below till at last the water rushed into her holds. In the meantime nothing further could be done but await the flood coming in and have everything in readiness to stop, as far as possible, the floating cases from getting up the river. Two vessels, the *Loanda* and the *Eurydice,* that were anchored in the reach a little above Mateabruj (the latter being a fully laden kerosine oil ship, and the former with yards braced square and ready for sea), were towed down to the bottom of the reach as soon as the flood made. At 6 o'clock in the evening the *Aurora* sank slowly and her bows disappeared; the rush of water liberated the oil cases, and the whole river was one blaze of fire, the flames roared on high, and the wind rolled them in wonderful columns 150 feet high like huge water-spouts—spiral columns of red flame rushing up into the dense clouds of smoke and moving upwards with the tide—so that it was anticipated as if nothing would save the whole of the shipping from destruction. Fortunately the wind kept the cases towards the shore, where they hung and the buoys broke up the mass; the flames running up the bank set trees and ricks of straw that were close to the river bank on fire. The old harbour master's hulk, which had been lying on the bank at Mateabruj for many years, was destroyed, as also a police boat. The tug *Hetty* and the fire-engine were kept at the upper end of the fire which had spread as far as the King of Oudh's buildings, and beyond the *Hetty* and the fire-engine the police and harbour master's boats were employed driving the burning cases ashore or sinking them as they floated past. All danger was over by 7-30 P.M. Loss, value of *Aurora* £10,000; cargo partially lost, value ₹1,28,354. Crew 26 men. No lives lost. (No Court of Inquiry was held in the matter, but the Lieutenant-Governor of Bengal directed that an inquiry be instituted with the view of ascertaining, if possible, the cause of the fire); its result was not communicatad to this Department.

MARCH.

7. The British Indian craft LAXUMEE [of Thána, 52 tons register, official number 6183, age about 80 years], from Anjanvel to Bombay, with a cargo of ground nuts. On the 2nd March, whilst the craft was leaving the port of Anjanvel (Bombay coast) at low-water, went too close to the buoy near the bar, the tindal being unacquainted with the locality, to avoid a collision took her on to a sand-bank, against which she struck at 7 A.M. and finally broke up. Loss, value of craft not reported; cargo worth ₹6,355 was lost and ₹700 damaged. The crew, 13 men, all came to shore safely in a canoe belonging to the craft. (The wreck was caused by the tindal's ignorance of the port.)

8. The Italian wooden ship EMMA C [of Genoa, 1,174 tons register, official number 7, age 8 years, classed $^3/_3$ L.I.I. for 14 years in Veritas register], from Shields to Rangoon, with a cargo of 1,174 tons of coals. On the 5th March, when in latitude 6° N., longitude 90° E. (Indian ocean), the vessel took fire, caused presumably by spontaneous combustion; every effort was made to subdue it, but it proved unsuccessful. The crew finally abandoned the ship and got into two boats belonging to the vessel; they landed safely at Point de Galle. Original value of ship, £11,000; cargo, £520. The crew, 20 men. No lives lost. (The Consular Agent for Italy and the Marine Authorities at Point de Galle were asked to supply this Department with details, but, beyond the above particulars, no further information could be obtained.)

9. The British Indian brig HAZALAR ROHMAN [of Chittagong, 143 tons register, official number 14 of 1880], from Akyab to Chittagong, with a cargo of paddy, &c. On the 15th March, whilst the brig was proceeding along the coast, her planks suddenly gave way, and, the water rushing into her, she filled and sank at 6 P.M., about 15 miles south of Cox's bazar (Chittagong coast). Loss, value of brig, ₹3,000; cargo worth ₹250 was lost and the remainder was saved. The crew, 15 men, were saved in the brig's boat.

10. The Native ganja HARSINGAR [of Cutch Mândvi, 110 tons register, official number 1187], from Kurrachee to Bombay, with a cargo of cotton and wool. On the 27th March the ganja was lying at anchor alongside the native jetty in the Kurrachee harbour (Sind coast), ready to proceed to sea, when at 4 A.M. the ganja and cargo were discovered to be on fire. The tindal stated that the ropes were immediately cut adrift, and the ganja was towed on to the southern bank of the river off the native jetty, where she was finally burnt down to the water's edge despite the strenuous efforts made by the crews of other boats near by to extinguish the fire. The tindal said that he could give no opinion as to the cause of the bales being on fire, but that it might possibly have been due to some embers from the galley that was close to the bales having fallen down and set them on fire. Loss, value of ganja, ₹9,000; cargo worth ₹12,000 was lost and ₹600 damaged; the remainder, valued at Rs. 1,400, were saved. The crew (9 men) and 3 passengers were saved in boats sent by other vessels.

11. The British Indian padow TOOLSHIPRASÁD [of Surat, 27 tons register, official number 370], from Damán to Cambay, with a cargo of bamboos and teak-wood. During heavy weather on the 27th March the padow became unmanageable and would not steer well; at midnight she drifted on to a sand bank off the Dhádhar river in the Gulf of Cambay and broke up. Loss, value of padow, ₹1,200; cargo, ₹1,066. Crew, 9 men; five lives lost.

12. The British Indian wooden barque ASIE MINEURE [of Chittagong, 407 tons register, official number 4 of 1883, age 18 years, no class], from Balasore and Cochin to Calicut, with a cargo of rice. It appeared that the *Asie Mineure* was originally a French barque of the same name, having been built at Bordeaux, but was condemned and sold at Chittagong in consequence of her having been seriously stranded outside the Chittagong or Kornafuli river in September, 1882. The late owners, after having repaired the vessel, sent her to sea. The master stated that he left Cochin, on the 28th of March, bound for Calicut, and that on the following night he was tacking along the coast. That at about half past 11 P.M. he tacked inshore, the wind was from the W.N.W., and light; the sea was smooth, and it was a fine clear night, and he saw the shore at half past 11 o'clock, when he was distant 10 or 12 miles. He stated that he would have seen a masthead light 4 or 5 miles; that he turned in after midnight, leaving the first officer on deck, and requested him to call him if she broke off or came up, and to keep a good look-out. The master then lay down on a cot suspended before the mizenmast on the poop. The first officer of the *Asie Mineure* stated that he went on watch at midnight on the 29th, and was on the poop. It was a smooth sea and a clear night, the wind was a light breeze from the W.N.W., and he steered N.¼ E. The log was hove at 2 o'clock on the following morning, 30th, and the vessel was going 2 knots. The first officer stated that after half past 2 A.M. he saw a bright light on the starboard quarter, whereupon he woke the master and told him about the light. He thought the light was a steamer's light, and so kept watching it. After a few minutes he sighted a green light and reported it to the master, who got up, looked at the green light, and then went back again to his cot. The first officer thought the steamer would have passed the barque's stern safely. After some time he saw the red light and opened both lids of the barque's skylight to expose the rays of the light from a lamp suspended in it; he called the master and told him he saw both lights, and thought the steamer was coming over the barque. The *Nerbudda* was close to her, so the first officer called all hands up, because he saw the steamer was likely to run the vessel down. He stated that there was no time to get a lantern, and consequently told the men to make a noise, to ring the bell, and call out. He did not alter the course at all at any time. The master stated that the first officer woke him at half past 2 A.M. on the

morning of the 30th, and reported he saw a steamer's masthead light coming up astern. The master ordered the first officer to see the barque's lights burned brightly and to keep her course, when he laid down again. The master was awoke in a few minutes, as the first officer called him again; he had been dozing, and said he saw the steamer's starboard green light coming up. He told the first officer to keep the course and remained lying down, but immediately afterwards the first officer reported he saw both lights, and that the steamer was coming right for the barque. The master then got out of his cot and ordered the first officer to call all hands on deck; he stood on the poop deck for a while and then walked about, looking at the steamer's lights which were a little on the barque's starboard quarter. The first officer opened the cabin skylight so that the light in the cabin could be visible all round; the light in the skylight could be easily seen a mile or a mile and a half off by an overtaking vessel. At about 3 A.M. the *Nerbudda* kept on the barque's starboard quarter and ran into the *Asie Mineure* with great force off Chowghât or Palm river, about 17 miles S.E. of Ponáni port in latitude 10° 31′ N., longitude 75° 55′ E. (Malabár coast) the bluff of the steamer's port bow striking the barque. The *Nerbudda,* after fouling, caught the barque's mizen rigging, and, sliding along, carried it away, together with the main rigging. The crew of the *Asie Mineure* could not get near on the vessel's starboard side on account of the broken gear. The steamer stopped with her bows in the barque's main rigging for a considerable time, and then she backed astern. At the time of the collision the *Asie Mineure* had all her sails set, and was close hauled on the port tack. She had the Regulation lights burning brightly, and had a square lantern suspended on the middle deck beam of the skylight, which was used for the purpose of lighting the steering compass. That this lamp was also burning brightly, and that a seacunnie was at the wheel and two khalassies on the look-out—one forward and the other on the poop—and about 8 minutes after the accident the *Asie Mineure* sunk in 12 to 13 fathoms of water with the entrance point of Palm river bearing W. ½ S., distant nearly 7 miles. The master, first officer, and 17 hands were picked up, 4 by the barque's boat and 15 in the steamer's boats, when they were taken on board the *Nerbudda* and landed at Calicut, whence they were subsequently conveyed to Bombay. It was reported that the carpenter, John Carroll, behaved most admirably; he had in possession a life buoy, which he gave to the master, who could not swim, and so went down with the ship. The master stated that, although he was acquainted with Article XI of the Regulations for preventing collisions at sea, yet there was no time, after he saw that there was a risk of collision, to carry out that article by showing a white light or a flare-up light from his vessel's stern; that he had two globe lamps trimmed and ready to be lighted in a cabin in the poop. The first officer stated that, though he considered that rule applied to the circumstances on the night of the collision, he had no time to carry out the rule, and that he was under no obligation to have shown such a light until he saw the steamer's red light, and then there was no time, and that showing the light from the skylight was sufficient. Loss, value of barque *Asie Mineure,* about R36,000; cargo, R48,000. The crew, 23 men; 4 lives lost.

(For an account of the Nerbudda see Casualties No. 106.)

APRIL.

13. The French wooden barque MALACCA [of Bordeaux, 460 tons register, official number 3927, age 16 years, classed at Registre Maritime], from Chittagong to Calcutta in stone ballast. The master stated that the barque took her departure from the entrance of the Kornafuli river at noon on the 6th April, the weather being then fine, the wind from South, with a fresh breeze and a southerly sea running; thence to where the vessel

was lost experienced cloudy weather, a moderate gale from S.S.E., with a chopping sea from the same quarter. At 7 P.M. on that day the master stated that 8½ to 9 metres of water were obtained. From 7 to 8-30 P.M. there was as much as 10 metres of water, and after the latter hour only 8 metres was found. The master said that on this large and sudden decrease all hands were called on deck to put the vessel about, and for that purpose her helm was accordingly put down. At 8-45 P.M., whilst the crew were taking in the mainsail, the *Malacca* struck astern, about 20 miles S.S.W. of the D'Après shoal (Sunderbuns), and the depth had suddenly decreased to 4 metres. The barque not coming round, she fell off to starboard, the jib was immediately hauled down, the foresail clewed up, and the topsails taken in; the starboard anchor was then let go, but the sea still striking the vessel heavily on the port side, she paid off to starboard, with a heavy strain on the windlass. The port anchor was dropped to bring the barque's head to the wind with her mizen set and the boom kept amidships, but unfortunately at that moment the starboard chain parted just above water. The *Malacca* kept striking hard by the stern and rolled much, which caused the masts and the frame of the vessel to strain. At 10 o'clock, as the water commenced to show above the ceiling planks, measures were taken to throw out a portion of the ballast, but as the tide was rising at the time, it was thought she would have been got off, and consequently the crew vigorously continued jettisoning the ballast. At 10-30 P.M., whilst the crew were heaving out the ballast, it was reported that the water had already risen to within 50 centimetres of her lower deck beams, and as it was evident that nothing could have been done to save her, the crew abandoned it after further exertions. The barque subsequently sank deeper in the sand and filled fast; at every roll the frame was heard to creak, when the crew were forced to desert her after every effort having been made to keep the water down, as the water having risen above her lower deck beams. The Port Officer, Chittagong, reported that it was impossible to proceed to the scene of the disaster owing to the tempestuous weather, but he opined that the ship had broken up immediately, considering that she was lying in a most exposed situation, where heavy rollers run on the calmest days. Loss, value of barque when new would be approximately from 150,000 to 200,000 francs, and her value at the time she was lost would not be more than ₹10,000. No cargo on board. The crew, 14 men, were saved in the vessel's boats. (No Court of Inquiry was held to investigate the cause which led to the stranding and subsequent loss of the barque *Malacca,* as the Government did not order the same, but the Agents at Chittagong reported that one was doubtless held at Bordeaux, and its result was not known).

14. The British Indian battalla RATNAGIRI [of Bombay, 50 tons register, official number not known, age 15 years], from Bombay to Goa, with a cargo of cement in casks. At 8 P.M. on the 13th April the battalla, owing to the ignorance of the tindal, ran upon the rocks to the southward of Kundari island fort (Bombay coast) and broke up. Loss, value of battalla, ₹1,500; cargo ₹3,500. The crew, 9 men: 8 were saved in a toney belonging to a muchwa lying near by, and one person was picked up by the *S.S. Savitri,* which was on her way to Bombay from Goa.

15. The British Indian battalla DHANAPRASAD [of Bulsár, 51 tons register, official number 1484, age 26 years], from Umbargaon to Cambay, with a cargo of sagli wood. At 8 P.M. on the 17th April the battalla, on account of boisterous weather and rough sea, stranded on the bar at the entrance to the Dhádhar river (Gulf of Cambay), and broke up. Loss, value of battalla, ₹2,500; cargo, ₹1,504. The crew, 12 men, swam ashore.

16. The British Indian brig SOUNDARAVULLY [of Negapatam, 90 tons register, official number not reported, age 15 years], from Pondicherry to Madras, with a cargo of 720 bags of bones. It appeared that there was a very heavy N.W. squall early on the morning of the 21st April, with excessive rain, thunder and lightning; the brig, which was riding at anchor outside the Madras harbour in the North roadstead, parted her cable some time after midnight, whilst a fresh breeze was blowing with no sea on. The coir cable end was found to have been much chafed and cut. A second anchor was let go immediately, but the cable being an old one, it also parted, and the brig drifted ashore at about 4 A.M. The steam-tug *Madras* was sent to her assistance, but she was found to be so full of water that endeavours were of no avail. It was reported that the majority of the crew, including the master, were ashore at the time of the casualty. Value of brig, ₹2,500; cargo, ₹190. Crew, 13 men, were saved by means of boats.

17. The British Indian wooden schooner ABDUL RHYMAN HYDROSE [of Madura, 200 tons register, official number and age not reported], from Cochin to Pooar, with a cargo of paddy and rice. On the 22nd April the schooner, whilst proceeding on her voyage, called at Trivandrum (Malabár coast), to get some stores; at 4 P.M. the tindal attempting to leave the port when the breeze was very light and a strong current running, the schooner stranded on the beach near the chauki (a Police post) at Trivandrum. Efforts were made to get her off but unsuccessfully, as she subsequently became embedded in the sand. Loss, value of schooner, not reported; of the cargo, only 200 bags of paddy and rice were saved, and the remaining portion was damaged; value not reported. The crew, 12 men, got safely to shore. (The wreck was attributed to the carelessness of the tindal.)

18. The Native ganja PEER PRASAD [of Cutch Mándvi, 39 tons register, official number 38], from Trombay to Molky, with a cargo of salt. On the 27th April the ganja was proceeding along the coast, and when near the port of Molky (Malabár coast) the tide, which was very high that day, did not entirely ebb, and the rocks being under water could not be perceived; at 5 P.M. the ganja struck on a rock about 2 miles off Padubidre Kadiapatnam, and, having sprung a leak, shortly afterwards foundered. Value of ganja, ₹2,500; cargo, ₹3,246. The crew, 6 men, were saved by means of fishing boats.

19. The British Indian padow LAXMIPRASAD [of Kelva Máhim, 9 tons register, official number 994, age unknown], from Murbád to Bombay, with a cargo of fire-wood. The padow, it appeared, was an old one, and on the night of the 27th April, when about 2 miles seaward of Utan (Bombay coast), she sprung a leak; the crew began baling the water out but owing to the water rushing in so rapidly that, in spite of all the attempts made to keep her afloat, she foundered. Loss, value of padow, ₹800; cargo ₹150. The crew, 9 men, were saved by swimming to the shore.

20. The British composite ship RIVERSDALE [of Liverpool, 1,490 tons register, official number 29953, age 19 years, classed at Lloyd's A I. 100], from Madras to Vizagapatam with a cargo of jaggery, turmeric, and redwood, valued at £6,947, and had also 350 tons of stone ballast on board. There were three certificated officers when the vessel arrived at Madras from London, and that before proceeding to Vizagapatam the master discharged the second officer in consequence of his having made certain false statements regarding his sobriety to a surgeon at Madras, thus leaving only the first officer and himself as certificated officers. He applied for another officer, but was unsuccessful, and intended to replace one from Calcutta as soon as the ship reached Vizagapatam. There were four compasses on board, which were all tested before the vessel left Madras, and the master said they were correct. On the night of the 28th April, everything being clewed up, the *Riversdale* was hove short at 10 o'clock,

the topsails were set, and the vessel weighed anchor and proceeded on her voyage. The master was on deck; there was a look-out man forward, and a man at the wheel. The quartermaster said that the course ordered by the master was N.E. by E., which was steered for a few miuntes and then changed to N.E. Shortly afterwards the master ordered the helm "hard down" and asked how her head then was, and on being told it was N.N.E. he sung out to keep her course N.E., after which it was altered to N.E. by E., and which course was continued up to midnight. The different changes in the course were ordered about half an hour after leaving her anchorage. She was fairly underweigh, with a light breeze from the southward, when the master steered N.E. by E. The weather was fine but a little hazy, and the sea was smooth from the N.E. The ship continued on her N.E. by E. course for 8 miles by the ordinary log up to midnight, when it was changed to N.E. The master then left the first officer in charge and went into the chart house, but before leaving the deck he directed the first officer to keep that course, to call him if he saw anything, and to pay attention to the steering. The first officer said, that when he came on watch at 12 o'clock that night, the master was not on deck; he had gone below, and that he got the course N E. from the man at the wheel, which course was maintained till 4 A.M. on the 29th. At 2 A.M. the first officer sighted the Madras light which bore S.S.W. dipping on the horizon, and reported it to the master. The master was on deck off and on all night, and at 2 A.M. he took a bearing of the Madras light, but did not recollect what the bearing was. Two hours after the master relieved the first officer on watch and altered the course to N.N.E., then at 5 A.M. to N. by W., then at 8 A.M. to N.N.W., which was steered up to noon. About 8 A.M. the first officer came on poop, when the master told him to hurry down and discharge ballast because he wished to clear out his ballast before arriving at Vizagapatam, and therefore he began at once to work at it. The master alleged that the N.E. course was maintained up to noon, and the distance run by the ordinary log was 94 miles, after which the vessel was steered N. by W. for an hour, then N.N.W. for three hours; but the first officer said that the course was North up to 4 P.M. when it was changed to N. by E., which was the last course steered; the quartermasters swore that the course from noon to 2 P.M. was N.N.W., after which it was altered to north at 6 P.M. and then to N. by E. till the vessel struck. In the afternoon, the master kept the vessel under short canvas, a little to the westward, for the purpose of keeping the ship steady. At noon the master went into the first officer's cabin and looked at the log slate to get the distance run, but he did not notice any other entries. There appeared to have been a difference of 6 miles to the North in the latitude the first officer had by observation, and this the master explained was owing to the first officer taking no account. The first officer alleged that the only observation after leaving Madras was that taken by himself at noon on the 29th, which was apparently on his own account. The vessel's position was stated to have been 14° 16′ N. and the longitude got by account was 80° 44′ E. He said that it was usual to take sights every morning for the longitude and at noon for the latitude, but on that voyage he did not offer to take sights for the longitude, as the master did not give him orders to do so. When the first officer reported that he got longitude 80° 44′ E., the master told him that it would place the ship on the land, whereupon the first officer altered it in the vessel's log to 81° 44′. The master first deposed that he did not take the longitude because he had a bad eye, and again said that he could not take the longitude as the weather was misty and he could not get a clear horizon, and lastly, that he did not take observations for longitude because he thought it was unnecessary, being only 14 hours out of Madras, and also being quite satisfied otherwise as to the position of the vessel. The master further said, that even if he could not take the

time, his wife, who was on board with him, could. The master made the position of the *Riversdale* by dead reckoning at noon to have been 14° 10′ N. latitude and 81° 30′ E. longitude, so that the position got by the first officer in the longitude by account was 14 miles ahead of that of the master's. The master therefore accepted his own position to have been the true position, and acted on it. At 4 P.M. the master intended to make Hope island light, but thinking that the ship had gone much to the westward, he decided to make for Point Divi light, and accordingly ordered soundings every hour as the vessel was heading in shore. At this time the Point Divi light bore N.N.W. (Westerley) distant about 76 miles, when the course was altered to N. by E., and the patent taffrail log was put over. The first officer stated that he went on watch again at 4 P.M., the course being then N. by E., and which course he held till relieved at 6 P.M. He and the quartermasters said that the ordinary log was kept going every four hours until the master put the patent log over at 4 o'clock. At 6 P.M. the master ordered sail to be made, so the boatswain set the upper maintopsail, maintopgallantsail and foresail. The master allowed 2 knots an hour for the current. He said that the ship was kept on the N.E. course when she struck at 10-40 P.M. the same night. He said that he calculated the distance run to noon on 29th was 102 miles by ordinary log, and the distance run by patent log from noon till the vessel grounded was 38 miles, but it appeared that the first officer did not allow for current. At 8 or 8-30 P.M. on the 29th the first officer relieved the master on deck and received the course N. by E., which was the first course he ever got from the master. The master left orders to keep a good look-out as the ship was heading inshore; to take a cast of the lead at 10 P.M., to call him if he got any bottom, and to keep the lead going every hour afterwards; he then went and sat down in a chair close by the pilot house. The master swore that he gave the courses direct to the first officer on leaving Madras, but at first gave the necessary courses to the quartermasters. The first officer at 10 o'clock that night put the *Riversdale* all aback in order to get a cast of the lead, which brought her head to E.S.E., but finding no bottom at 35 fathoms, he then put the vessel on her course again. The weather was fine, the wind was a moderate breeze from S.S.E., and the night was a clear one. The ship was going at the rate of 5 knots an hour under lower fore, and main upper topsails, the lower mizen maintopgallantsails, the jib and foretopmast staysail and foresail. The first officer went forward after heaving the lead in order to see whether the lights were burning brightly, but as he came to the door of his cabin the quartermaster at the wheel reported that the vessel would not steer. Whereupon he examined the steering gear and found that it was all right, but on looking over the ship's side observed she was aground. Between 10-35 and 10-40 P.M. the first officer called the master, telling him that the ship was on shore; the master jumped up and at once came on deck, when he heard the noise of breakers; he took a cast of the lead and found 16 feet of water on the starboard side, the vessel's head then being to the N.E. The *Riversdale* took the ground very gently about 14 miles S.W. of Point Divi lighthouse and about 2 miles off the beach forming the delta of the Kristna river (Madras coast). The master immediately called all hands on deck and hauled the head sails down and set the spanker and tried to force her head round, but to no purpose. The port anchor was then dropped and the lower foretopsails set aback to keep her off the anchor. Towards dawn on the 30th April the hatches were taken off, all hands then commenced discharging ballast, which was vigorously continued all that day up to 5 P.M., but without any avail. The master then went ashore and procured assistance from Masulipatam, the weather being still fine and the sea smooth. At 8 A.M. Point Divi was sighted,

bearing N.E. ¾ N., False Point Divi bore W. by S., and the lighthouse being also visible off the lower topsail yard. Besides the port anchor he had a kedge out, but lost both; when, on the 3rd May, the master put out another port anchor; some days afterwards he let go the starboard one, but they both parted. The Government steamer *Madras* left Cocanada on the 4th May to render assistance, when, on the arrival of the steamer, a portion of the jaggery was jettisoned; the hawsers were passed, but just as the *Riversdale* began to move the master observed that the *Madras* was bumping, and consequently cast off to prevent her swinging on to the sand-bank; the *Madras* was unable to get within reach of the wreck again, and the master then ran out two warps, but they also parted. The master then proceeded in the steamer to Cocanada for the purpose of obtaining anchors and cables, but returned on the 12th May with a steel hawser and anchor. Up to this time the *Riversdale* had apparently worked a basin for herself in the soft mud, and was afloat at high-water. There were no lighters to be had in the vicinity; the sea was breaking under the vessel's bows, which rendered it impossible for lighters to get alongside. She slewed according to the wind, but never floated. Strenuous efforts were made by the master up to the 26th to get the ship off, but without success; she lost eight anchors and all her chain, and was striking heavily. The *Riversdale* in the meantime had worked up a little, and laid in 12 feet of water upon a soft muddy bottom for the most part, but with hard sand under her stern post. On the 24th May, with the master's permission, all hands left the vessel, as they feared to remain on board, with the exception of the first officer, the boatswain, the master's son (an apprentice), and his wife. Three days later the first officer and the boatswain refused to remain aboard; they were therefore discharged and paid up to date; at this time the master's wife and his son left the vessel. On the 30th May the salvage steamer *Retriever* was sent to her help, but could not succeed in towing her off. Notwithstanding the indefatigable exertions of the master to extricate the vessel from her perilous position, she laid fast, stuck close on to the beach in 4½ feet of water. On the 3rd June the master abandoned the ship as a total wreck, and with the assistance of a few coolies he began working up to the 28th June, when he succeeded in landing 5,000 bags of jaggery and 225 bags of turmeric at Masulipatam. She was imbedded 8 feet in the mud with about 6 to 7 feet of water alongside, at times with sand-banks all round her, and the bottom changing its position continually. Loss, value of ship *Riversdale*, £30,000, cargo worth £6,799 was saved and shipped to London per barque *Adèle*, and the remainder valued at £148 was damaged and lost. She was sold at a public auction to the Hooghly Docking Company, Calcutta, for the sum of ₹22,250, The crew, 26 men, were saved by means of shore boats.

[A Special Court of Inquiry was held at Madras, by the Chief Presidency Magistrate, on the 24th and 30th June, and on the 3rd, 4th, 5th, and 7th July, under section 7 of Act V of 1883 (The Indian Merchant Shipping Act), to investigate the circumstances attending the stranding of the above vessel off False Point Divi. The Court recorded that, having considered the evidence, it seemed that there were sufficient grounds for framing charges against the master and the first officer of having, by their own acts and default, caused the stranding of the British ship *Riversdale*. A copy of the statement of the grounds upon which such charges were framed, and of the charge itself, was then handed to the master and the first officer, and the Court adjourned for the trial of the charge until the 3rd of July. It appeared that this investigation was likely to involve the consideration of the question as to the cancellation or suspension of the certificate or certificates of some one or more of the officers of the *Riversdale;* it therefore, under section 13 of the above Act, appointed as its assessors two persons having experience in the Merchant Service. A preliminary objection taken by the Solicitor on behalf

of the master and owners to the examination on oath of the master and the first officer of the *Riversdale* was overruled. The Court observed that having heard all the evidence forthcoming in this matter, as also the arguments of the counsel and attorney, and having placed on record—as required by the above Act—the written opinion of the assessors, and having duly considered the same, recorded that, besides the master, there was only one certificated officer on board, the second officer having been discharged by the master at Madras. The weather was fine and the wind favourable, and nothing unusual occurred up to 10-40 P.M. on the 29th April, when the vessel was reported to have been ashore; that she was so was only ascertained in the first instance by her losing steerage way; nothing was felt or seen to account for this. Neither the master nor the first officer could give any explanation why a vessel bound for Vizagapatam should be found on shore 7 miles South of Point Divi, or indeed should have been in that vicinity at all. The ship's log—kept by the first officer—was produced, in which the courses steered and the distances run appeared to have been duly entered. The master *now* challenged the correctness of those log entries. In short, he alleged that they were not true either as to courses or distances. He gave his own version of occurrences during the time from leaving Madras to the stranding of the vessel the following night, and in support of that version produced an entry made by him in the official log and signed by himself and the first officer. One page of the ship's log had been scored across and re-written. Both the master and the first officer said this was done because the master objected to the account given by the first officer of the action taken *after the vessel had gone aground;* but there was also a slight difference in the courses given when re-written, *viz.,* that when first entered the course was given as North for 7 hours from 1 P.M., whereas when written the North course was entered for 4 hours only and N. by E. till the vessel stranded. This in itself might not make such difference in the result, but it was of some importance when considered with other matters in connexion with the entries both in the ship's and the official log. With the exception of an observation taken at noon on the 29th by the first officer—apparently quite on his own account—no observations were taken after the vessel left Madras. The longitude if worked out at all—of which there was some doubt—was got "by account." The first officer said he did not offer to take sights for longitude, as the master did not give him orders to do so. The Court observed that unfortunately the master treated his officers in such a manner that it was understood that the first officer would not venture to make a suggestion to the master. Indeed, the master said plainly that he expected him just to do what he was ordered and no more, and that he (the master) told the first officer if, and when, it was convenient to take sights for longitude. The master first said he did not take the longitude by observation because he had a bad eye; then said that he could not take the longitude as the weather was misty, and that he could not get a clear horizon; lastly, that he did not take observations for longitude because he did not think it necessary, being so short a time out of Madras and being quite satisfied otherwise as to the position of the ship. The Court recorded that the first reason was untenable, as the first officer always took the sights whilst the master took the time; and the master said that even if he could not take the time his wife, who was on board with him, could. The second reason was not maintained after the evidence given that the weather was quite clear, and that no difficulty in taking observations existed on that score. The third reason given might or might not have been the true one, but the fact remained that this important precaution was not taken. There was a direct conflict between the master and the first officer as to the courses steered between 4 A.M. and 4 P.M. on the 29th April. If the courses stated by the master were steered, then the *Riversdale* would not have been placed in peril. If the

first officer's record was correct, then no other result but that which had occurred was possible. The master was, he said, on deck off and on all night on the 28th and certainly all 29th. He took personal and special charge of the starboard watch. During the 29th the first officer and the crew were busy discharging ballast. The master retired to the pilot house at 8 P.M. on the 29th—the course being N. by E. (since 4 P.M.), the only orders given being to keep a good look-out, take a cast of the lead at 10 P.M. and each hour afterwards, and to call the master if bottom was found. It was clear that whatever courses were steered between 4 A.M. and 4 P.M. the master must have been cognizant of them, and if they were not in accordance with his orders he could, and no doubt would, have at once corrected any error. The Court observed that the first question it had to decide was, what were actually the courses steered? The master said that his intention was to make Point Divi lights and then work up the coast from that, because he did not want to get to leeward of his port (Vizagapatam), as his vessel would not beat. Unhappily the courses given by the master would not account for the *Riversdale* being where she was, nor would they have taken her within 40 miles of Point Divi lights, nor to the port to which she was bound. The master entered in his official log-book that the patent log showed the distance run from midnight on 28th to midday on 29th as 94 miles, but it was admitted that the patent log was not put over till 4 P.M. on 29th. On this being pointed out the master said that the entry "P.L." was a clerical error, and then there was the curious remark "no appearance of land" which, considering that by his own account he had been running altogether 102 miles on a N.E. course, was an appearance which could hardly have been expected. Then the master said he steered N. by W. for one hour, N.N.W. for three hours, and from 4 P.M. N. by E. till the *Riversdale* struck. So that, according to the master's story, he made no Westing till noon on 29th, whilst the first officer's log, which was supported by the quartermasters, showed that the Westing commenced at 8 A.M. If the master really believed himself to have been so far to the eastward as he alleged, the order to take a cast of the lead at 10 P.M. and every hour after seemed noticeable. The entry in the official log-book appeared to have been tampered with, an erasure being visible where the figures "94," recording the distance run to noon on 29th, appeared. Also, an erasure where the course N.N.W. was entered. At first the master declared he could perceive no such erasures, subsequently he admitted there were erasures, but could not account for them. The record in the ship's log-book kept by the first officer of the latitude and the longitude on 29th had also been written over erasures; neither the first officer nor the master could give any explanation of these erasures. The Court observed that it was forced to arrive at the conclusion that neither the written nor the verbal statements of the master, as to the courses steered and the distances run, were trustworthy; that they were inconsistent in themselves and irreconcileable with the facts of the case. The Court recorded that it had now to deal with the first officer's version of the courses steered. Although the duties of the *Riversdale* appeared to have been carried on in a very loose manner, the Court was satisfied that the record of the courses shown by the first officer in his log were substantially correct. Their correctness was borne out in the main by the evidence of the quartermasters. The master admitted that when he ordered the entries made for 29th April to be re-written, he examined the whole revised record and made no objection to its accuracy. The master also said that he inspected the log slate, but only to get the distances run; still, it was very improbable that he would have failed to notice at the same time a marked deviation from the course he said should have been steered. The master admitted that he never consulted his officers as to the navigation of the ship, nor gave them any information beyond the necessary orders from time to time, and that the first officer had

not access to the chart. Yet the Court found that if the courses and distances recorded by the first officer was worked out on the chart and allowance made, as the master said he did in his reckoning, for the current, the *Riversdale* would have been brought almost exactly to the spot where she stranded. The Court therefore were of opinion that the courses entered by the first officer were the courses steered, and as the master not only admitted his sole responsibility for the navigation of his ship, but also repudiated any interference on the part of his officers, the Court concluded that he intended the vessel to have taken the course, it found she did take. Having found these facts, the Court had next to judge as to how far either or both of the two legally responsible officers of the ship were to blame, if at all, for the disastrous result. The Court observed that as to the master his sole responsibility for the navigation of his vessel was undisputed. He permitted no interference by his officers, nor dared they have made any suggestions. He gave them no access to the charts nor any information beyond the bare orders he might have given to a foremastman. He regarded them as mere machines to be worked by himself, when, and as he pleased. Naturally their sensibilities were deadened, and they could not take that interest in the ship and its navigation which their own position would otherwise demand, and which their employers had a right to expect. The master had, he said, considerable experience of the coast; his only officer had practically none. Although the master ordered a cast of the lead to be taken at 10 P.M., and every hour after, he retired at 8 P.M. and left the vessel in charge of the man in whom he placed no confidence, and to whom no information was given, calculated to rouse his special attention to the possible dangers of the position. The master took no observations himself of any kind in order to ascertain his true position, or to correct possible and probable errors on the part of the subordinate whom he ignored as a competent navigator. It would have been ordinary prudence to have at least waited on deck till the result of the first cast of the lead had been ascertained. It was wholly inexplicable how any man, having due regard to the valuable lives and property in his charge, could so shape his course, when bound direct from Madras to Vizagapatam, as to have been found near midnight cruising off False Point Divi. The chart in use at the time was not produced, but it was said to have been one of Imray's (of 1862), including the whole coast from Bombay to Calcutta. This could have been little better than an ocean chart; there were no coast charts on board, and the absence of such should have induced additional caution on the part of the master. Either he did know where he was going, in which case there was culpable recklessness, or he did not know where he was, in which case there was equally culpable negligence or ignorance. There were no natural difficulties of any kind to have been contended with. The sea was smooth, the weather fine and clear, the wind favourable, the current normal, and the compasses properly adjusted; yet the *Riversdale* was sent straight on to a mud-bank so gently and quietly that no one aboard had at first any idea of the real cause of her losing steerage way. The Court regarded with grave suspicion and disapprobation the manifest attempt that had been made to tamper with the ship's records. Looking to the entire absence of any explanation as to why the *Riversdale* should have been in peril of any kind, and having regard to all the circumstances, the Court were of opinion that the stranding of the vessel was primarily and mainly due to negligent and reckless navigation on the part of the master. The Court recorded that it became necessary in the course of the investigation to make inquiries regarding the sobriety of the master. It appeared that the second officer was discharged in Madras owing to certain statements made by him on this subject to the surgeon of the First District of Madras, who was called in one night to see the master professionally. Those statements were not volunteered by the second officer, but were elicited in answer to questions by the

medical officer, and were given merely as a non-professional opinion. The surgeon, when he saw the master, did not, as he expected, find any symptoms attributable to over-indulgence in liquor; the surgeon only saw the master on that one occasion, and that was on the 9th April. Three days afterwards the second officer wrote to the master stating that " he finds on consideration that the statements made (by him) to the surgeon were not borne out by facts within his personal knowledge, and he withdraws them and declares them baseless," and proceeded honourably to express regret for any annoyance caused to the master, and assured the master that "there was never any intention to cast even the shadow of a suspicion on the master's personal or professional character." On the 15th April, according to the official log-book, the second officer left the vessel, agreeing to forfeit R60 to defray the expenses of having his place filled as second officer. The first officer when pressed by the Court expressed an opinion that the master was not a sober man. He was evidently reluctant to give evidence on that point, but eventually, when further pressed to be more explicit, said in answer to his counsel:—" I say the captain was an intemperate man all through the voyage, very much so." The sailmaker, who seemed to have been an intelligent man; said:—" I did not think the captain was a little intoxicated on the night of the 28th April. I scarcely saw him on the 29th, so cannot speak to his state. During the voyage he appeared to me to be several times intoxicated. He told me he was suffering from some complaint——did not say what; I thought he was intoxicated. I knew he was subject to fits——what from I cannot say. I never saw him incompetent to command his ship." The quartermaster at the wheel on the night of the 28th said distinctly that " the captain was not sober, and that he staggered about the deck." But all those who spoke to this subject, said that they never saw the master incapable or incompetent to command his ship. On behalf of the master it was alleged that he had sunstroke, and that he had a fall (how caused not stated) and was cut on the head; that exposure to the sun affected him; and the surgeon stated that the symptoms he observed might have been traceable to exposure or the effect of sunstroke. It was suggested in the course of the cross-examination of the witnesses that the master was subject to epileptic fits, but the surgeon said his symptoms were not of an epileptic character. It was evident that the impression on the minds of those aboard the *Riversdale* was that the master was an intemperate man; but they might have been wrong in their conclusions. On the whole, the Court did not consider that there was sufficient evidence to warrant them in expressing an opinion on this point adverse to the master. There was no evidence that he had at any time been incapable of discharging his duties as master. The Court observed that they next had to deal with the first officer. It was unnecessary to repeat the peculiar circumstances in which the subordinate officers of the *Riversdale* were placed. The master kept entirely aloof from his officers, and it was evident that not only were they never consulted, nor even allowed any opportunity to have made themselves acquainted with the progress of the navigation of the ship, but they were given very clearly to understand that no interference or suggestions on their part was expected or would have been permitted. This was a most unhappy state of affairs, especially in a vessel of this class sent to sea with only one certificated officer besides the master, a boatswain who could neither read nor write acting as second officer, and a master who was said to have been subject to " fits." The Court fully sympathized with the difficulties of the first officer's position, but they could not entirely relieve him of all responsibility for the disastrous results which led to this investigation. His orders were to take a cast of the lead at 10 P.M. on the 29th and every hour afterwards, and to call the master if bottom were found. Now, even though he was kept in ignorance of the exact position of the *Riversdale*, yet he knew he was working along a dangerous and low-lying coast, and the

fact of being ordered to keep the lead going every hour from 10 P.M. should have roused him to caution. His own position as the only educated and competent officer aboard, except the master, should have increased his sense of responsibility irrespective of any personal peculiarities on the part of the master. The Court observed that in accordance with the orders, a cast of the lead was taken at 10 P.M., and that, although the lead was well armed, there was no sign of bottom having been reached at 35 fathoms. Yet in about twenty-five minutes after this cast had been taken the *Riversdale* was on shore. No sign of the vicinity of land had been detected, and no shock of any kind was felt. There was evidence which the Court accepted that the lead really was cast and the vessel was brought to for the purpose. The first officer said that he did not think it necessary to pay out more than 35 fathoms. It was clearly the duty of the first officer to have found bottom or to have exhausted all the means at his disposal for the purpose. Had he done so the ship might possibly have been saved, notwithstanding the peril in which she had been placed. The first officer's failure to discharge that duty carefully and efficiently had undoubtedly contributed to the disaster. As regards the censurable incorrectness of the ship's and the official log-books, in some respects the first officer shared responsibility with the master. There were erasures where the position of the vessel on the 29th was entered. Of these the first officer could give no explanation. Again, he had signed the master's entry in the official log-book which, as to courses, was in direct variance with his own log-book, which he swore was correct. The master said that he wrote this entry in the official log-book the day after the ship stranded, but he did not get the first officer to sign it till about twenty days afterwards. The entry was not read over to the first officer nor did the master see him sign it. He merely gave him the book, and the first officer subsequently returned it signed. He admitted having signed the entry, but said that he did not read it over before signing, as the master assured him it was only a copy of his entry in the ship's log-book. The Court observed that it was remarkable that this entry, under date *28th April 1884,* was written in the official log-book after an entry made by the Port Officer of Masulipatam under date *31st May 1884.* The master's explanation in regard to this was not satisfactory, and the first officer could give no explanation at all. The Court's impression was that one or both of these officers endeavoured to make *ex post facto* entries suitable to the dilemma in which they found themselves, but the details would not work out satisfactorily. The Court recorded that the assessors were of opinion that the charge of insobriety was not sustained, but that the master was in default by reason of negligent navigation, he having steered courses which took him into danger, and taken none of the ordinary means of navigation to verify his position at any time, quite neglecting sights, and only using the log and lead in a very careless and perfunctory manner. That when from the very conflicting accounts of the courses steered, as given by the ship's log-book, the official log-book, and the four quartermasters (not one of which agreed with the other), the assessors picked out the probable courses steered and added thereto the rate and direction of the current, it placed the *Riversdale* ashore about where she was wrecked. But from what the assessors gathered, the master, if he allowed for a current at all, was under the impression that it ran N.E., whereas it was well known that the current there followed the direction of the coast line. But there seemed to have been a perfect state of chaos about the navigation of this unfortunate ship, erasures and alterations in the vessel's log-book and in the official log-book so as to make them quite unreliable as evidence, the data having been clearly manufactured to meet the case, and, as in most instances of the kind, making confusion worse confounded. Then, the assessors tried to elicit from the quartermasters what course they steered, but the course had been altered so often that no one in the vessel could tell what course she had really gone

unless indicated by sights which were quite neglected, and for no reason, for the weather was fine and clear. The assessors asked for the chart by which the ship was navigated, hoping that it might clear up some of the difficult points, but the master made this remarkable answer:—"That he left it on board, thinking it might be of use to any one who got the vessel off in navigating her." So the assessors were without the means of judging of the efficiency of the charts and sailing directions, but they drew their own inference that those publications would not help him if produced, and would not elucidate the course he steered. The unsatisfactory nature of the relations between the master and his first officer was one of the factors that contributed to the loss of the *Riversdale;* he did not have the share in the navigation of the ship he ought to have had, seeing that at any moment he might have been called upon to succeed the master, for the master was frequently unwell, as the evidence showed, from epileptic fits and sore-eyes. The assessors found also that he usually got the courses steered from the man at the wheel. The acting second officer never passed them on to him, and the *only* time the master did so was at 8 P.M. On the evening the vessel stranded the course given was N. by E. The *Riversdale* was bound for Vizagapatam, bearing N.E. by N. from Madras, yet twenty-four hours after leaving port she was stranded at near False Point Divi N. by E., 160 miles from Madras. The assessors endeavoured to get some reasons for such a peculiar route being pursued, that is, assuming he had a plan at all, but could only get the unsatisfactory one that he intended to pick up the lights, which the assessors considered was a very improper course to have adopted. The assessors found that the first officer also in default for not taking the care he should have done to find bottom at 10 P.M., having been ordered to do so by the master at 8 P.M. The assessors considered that at 10 P.M., when the lead was hove the vessel was in very shallow water, indeed, for at 2 or at most 3 miles further on she grounded in 16 feet, and bottom could be obtained 12 miles off in 30 fathoms. The assessors thought that the lead was over-hove, no one expecting to find bottom they did not take the care they otherwise would have done; had the first officer carefully sounded and found bottom, there was plenty of time to have hauled the *Riversdale* off and saved her. He was also in default for having made an erasure in the ship's log-book relating to the longitude, but he said he knew nothing of the alteration. With regard to the charge of being in his room at the time of the vessel stranding, the assessors did not attach much importance to that, neither would it have prevented the ship going on shore if he had been on the poop. They were all lulled into security by a supposed no bottom being found, and having sifted the charge the most probable explanation was that when the vessel was kept on her course after sounding and the helm and the look-out relieved, the first officer went to see if the side lights were burning properly and who was on the look-out; and on his way back he wrote on the log slate the statement of sounding, and this was the time when the man at the wheel finding the *Riversdale* not steering left his post to tell the first officer. But in extenuation the assessors desired to call particular attention to the position of the first officer in this vessel. The master made no sort of confidant of him as regards the position and navigation of the ship; he had no access to charts or any means of knowing the vessel's position. The master never gave him the courses to steer except on one occasion, and in fact he seemed quite sent to Coventry; therefore he could feel no sort of responsibility for anything in the ship, and on this account and previous good character the assessors asked for leniency. In conclusion, the assessors had been struck with the remarkable nature of this shipwreck unique in their experience. She left, experienced very fine weather, and in twenty-four hours glided quietly on shore without any one on board being cognizant of it, and the first suspicion was raised that something was wrong by her not steering. Draw a straight line,

between the place she left and the place she was bound to, and the result showed that she had gone ashore 58 miles from that line. Comment was superfluous. The Court observed that, on the whole case, they found that the stranding of the British ship *Riversdale* was caused by negligent and reckless navigation on the part of the master, and that the first officer also contributed to the disaster by the negligent manner in which he performed such duty as was entrusted to him. The Court adjudged that the certificate of the master be suspended for a term of twelve months, and that the certificate of the first officer be suspended for a term of three months. The President, in submitting the proceedings of the Special Court to the Governor of Madras, described the difficulties and embarrassment experienced owing to the Government not being properly represented at these investigations. In this case, as in others, the interest of the owners and ship's officers were guided by counsel and attorney, and the invidious task of acting both as Prosecutor and Judge was thrown on the Court. It was the invariable practice both in England and in the other Presidency towns in India that the Board of Trade or the Local Government, as the case might be, should always be represented by their Law Officers, and this practice was not only conducive to the ends of justice, but saved much time and expense.

(This vessel, it was subsequently reported, was got off and towed to Calcutta by the steam-tug Retriever, where she eventually was repaired by her purchasers.)

MAY.

21. The British Indian kotia GAJO MAHAL [of Porbandar, 110 tons register, official number not reported, age 6 years], from Mangrol to Bombay, with a cargo of cotton, turmeric, and castor-oil seeds. On the 12th May the kotia was proceeding along the Káthiáwár coast, and when near Jhanjarpore she met with a heavy N.W. gale with rough sea; at 8 P.M., not being able to withstand the storm, she suddenly capsized and became a total wreck about 2 miles from Chorvad. Value of kotia, ₹9,000; the cargo was all lost, value ₹7,800. The crew (10 men) and 3 passengers safely landed on shore by means of the two boats belonging to the kotia.

22. The British Indian padow DARIA DOWLAT [of Gogha, 15 tons register, official number 170, age 28 years], from Gogha to Bombay, with a cargo of woollen blankets and cotton yarn, valued at ₹7,550. At 11 P.M. on the 13th May the padow, on account of the ignorance of the tindal, struck on a rock near the Piram lighthouse (Gulf of Cambay), and having filled with water she foundered. Loss, value of padow, ₹5,450; cargo worth ₹6,253, was lost; the remainder was saved. The crew, 8 men, were saved by swimming ashore.

23. The Native craft TEEP [of Bhúj (Cutch), 38 tons register, no official number, age 40 years], from Keti bandar to Cutch Mándvi, with a cargo of firewood. At 8 A.M. on the 15th May, during stress of weather and heavy sea, the craft after crossing the bar capsized, and having filled with water sank outside the Khubeer river mouth of the Indus (Sind coast). Value of the craft, ₹2,500; cargo, ₹150. Crew, 5 men; one life lost; the remainder were saved by clinging on to a large log, whence they were picked up by a pilot boat belonging to the port of Kurrachee.

24. The British Indian ganja RAMBAN [of Cutch, 130 tons register, official number 3768], from Calicut to Bombay, with a cargo of bamboo blinds. On the 15th May the ganja, whilst 2 miles off Quilundi, sprung a leak in consequence of heavy weather; the tindal threw overboard about 500 bundles, but, finding the impossibility of saving her, as she was leaking considerably, steered for the land; at 5 P.M. she stranded at Váliangad (Malabár coast), where she shortly afterwards broke up. Value of ganja unknown; cargo worth ₹284 was lost, and ₹200 damaged. Crew, 10 men. No lives lost.

25. The British Indian padow RATANPRASAD [of Surat, 50 tons register, official number 3798, age 37 years], from Bhávnagar to Bombay, with a cargo of cotton. On the 15th May the padow met with strong head winds and heavy sea off Damán, and endeavoured to put back to the nearest port for shelter, but was unsuccessful. At midnight the false gunwale was stove in by the heavy seas, and the padow, shipping much water, became unmanageable; at 2 A.M. she was driven ashore near Wasee off the Púrna river in the Gulf of Cambay, where she finally broke up. Value of padow, ₹3,000; of the cargo, ₹5,200 worth was lost and the remainder damaged. Crew, 11 men, swam ashore.

26. The Norwegian wooden barque IPHIGENIA [of Christiana, 274 tons register, official number not stated], from Calcutta to Algoa Bay, with a cargo of rice and gunnies, valued at ₹65,000. It appeared that the barque sailed from Calcutta on the 27th April bound for Algoa Bay, with a full cargo of rice and gunnies, and on the following day the pilot left her off the Sandheads, the weather being then fine, wind variable and light, with occasional rain and squalls. Nothing particular occurred until the 13th May. At 6 P.M. on that day the master said that he lost sight of Barren island, bearing W.S.W.$\frac{1}{4}$W., about 36 miles off, the vessel standing to the eastward of the Andamans on the starboard tack, wind S.S.E. At 9 P.M. the wind increasing the master took in light sails, when at midnight the wind veered to S.W. and W.S.W., with occasional heavy squalls. On the 14th the morning began with heavy rain and squalls, and the barque was going under topsails and courses. On the 15th, at 6 A.M., the wind wore to the S.E., there being thick and heavy weather and strong wind; at 6-45 the master tacked the vessel to the southward—heavy sea running from S.W. to W.S.W. at the time; the crew took in reefs in the topsails and the master ordered the main and foresails to be clewed up; but, the barometer showing no indication of storm, the crew made everything as secure as possible. At 8-15 A.M. the wind veered suddenly to the eastward, blowing a cyclone, the vessel being on the port tack heading South, when in less than three minutes all the sails, with the lower foretopsail yards, were carried away. The helm was put hard up, but, the vessel not answering, she was thrown on her beam ends, and the heavy sea pressing her down on the lee side, the barque was under water above the hatches, also every other part except the weather bulwarks, to which the crew had to hold on to save their lives. The vessel, when in latitude 12° 02 'N., longitude 96° 20'E. (Bay of Bengal), appeared to be settling down and would not wear, when the master ordered the rigging to be cut, which, after great difficulty, was done, and the whole of the main, the maintop, and the maintopgallant masts, yards, and sails went over the side, carrying with them the mizentopmast, with sails, stays, and rigging, and the whole of the braces, blocks, and gear from the foremast aft. The vessel wore a little, the rigging and spars were under the vessel's bottom bumping heavily, and which continued for about three-quarters of an hour, when the vessel rose sufficiently to cut away all the attached gear. The barque then gradually righted, when it was found that the pump was broken; at 2 A.M. sounded and found 20 inches of water, the master immediately got one of the pumps in working order, when the crew commenced working them. After about an hour's pumping, finding that the vessel was making considerable water, the master kept her before the wind, veering from East to S.E., to South, and then S.S.W. till noon. At this time the cyclone had slightly abated, with wind at South blowing a steady gale, with a heavy confused sea from all quarters breaking over her; the barque would not steer, so the crew consequently lightened her forward by emptying 800 gallons of water and throwing overboard the coals and a quantity of rope. On the afternoon of the 16th there was a lull, during which time the crew jettisoned about 316 bags of rice, bent the mizen and the forestaysails, and put up a

preventer stay on the mizenmast—the pumps being regularly attended to. At 8-30 P.M. no signs of the cyclone moderating, and it continued blowing hard during the night; after daylight the master got down the broken lower foretopsail yard and bent a lower topsail to upper topsailyard, fitted braces to the forward yards, bent jib and forestaysail, and set the foresail, when she steered in for the Andaman islands for the purpose of getting into smoother water. At 10 A.M. on the 17th lost jib and mizenstaysail; the crew then set to work and bent others, also a mizen. At noon she passed a British ship, which vessel signalled, asking whether assistance was needed, whereupon the master of the *Iphigenia* declined the offer with thanks. When in latitude 13° 15′ N., longitude 95° 10′ E., it blowing hard with a heavy sea on, the vessel began labouring fearfully, and the pumps were kept constantly going, but, notwithstanding, she leaked considerably. At 10 P.M. the mizenstaysail was blown away, when the master bent a forestaysail in its place; at midnight the cyclone gradually moderated, with heavy squalls. At 5 A.M. on the 18th the wind went round to W.N.W., heavy and confused sea from all quarters, the wind afterwards commencing to blow hard from W.N.W. and kept on till noon. At 1 P.M. the weather beginning to clear and the wind diminishing, during all this time the vessel being totally unmanageable. The master observed that she showed signs of straining by the deck rising on the port side and the waterway seams opening, the wind being at S.W. with a high sea on. At daylight on the 19th rigged a topgallant and royal yard on the mizenmast, and bent a topgallant sail. At 10 A.M. signalled the S.S. *Shahzada* and got longitude from her; at noon the master obtained observations, and shaped a course for Bassein, as being the nearest port to put into for shelter, as he considered that in her disabled state it was impossible to continue her voyage without repairs. Finally, on the morning of the 20th May, the barque anchored off Diamond island at the entrance to the Bassein river, when the master went ashore and called for a survey, whereupon she was examined by a shipmaster and a full draft pilot of the port. They reported that they sounded the pumps and found 13 inches of water in the well, and at the expiration of an hour after sounding got 15 inches, the vessel consequently made 2 inches per hour in still water, but the master reported her making much more at sea. The Surveyors further found that the mainmast, with all other masts, yards, and rigging appertaining thereto, had gone, also the mizentopmast, with all gear. The master reported having lost a number of other sails, and also having jettisoned a quantity of cargo. They were of opinion that the master acted prudently, and was justified in bringing the vessel in her disabled state to the nearest anchorage. Owing to the telegraph communication being interrupted since the late cyclone, the Surveyors recommended the master at the first opportunity to take the vessel to the island of Haingyee in a place of safety and proceed himself to Bassein, so as to communicate with parties concerned. The master, on finding that the repairs could not be done to the vessel, telegraphed to the owners, as also to the Calcutta Agents; after having received replies he then called for another survey. On the 17th June the barque was examined, lying at the entrance to the Bassein river. The Surveyors reported that they sounded the well and found the vessel making 1¼ inches of water per hour. After as careful a survey as they could make under the circumstances, they advised that the vessel be towed to Rangoon, put into dry dock or on a slip, and have her bottom overhauled. The topsides of the vessel's hull to be caulked all over, together with covering board, and the stanchions in wake of main rigging; the topgallant-rail on starboad side to be repaired; the chain plates between main and mizen rigging to be taken off and straightened; the main pump to be renewed with a new support lever; masts, spars, rigging, gear, sails, &c., to be replaced with new ones. As the Surveyors were unable to examine the *Iphigenia* below

water, it was impossible to arrive at any estimate of the cost of repairs. The master then engaged a tug steamer to tow the vessel across to Rangoon, where they arrived on the 23rd June. The master stated that, after leaving Haingyee island, he found that the barque was leaking considerably ; the pumps had to be kept constantly at work. Original value of the *Iphigenia,* ₹54,000; value of damage to the cargo, ₹1,580. The greater portion of the cargo was shipped in the barque *Smaragd* for Port Elizabeth. The hull was sold by public auction at Rangoon for the sum of ₹5,350 ; the masts, sails, stores, fittings, &c. for ₹1,040; and the damaged cargo, 200 bags rice and 10 bales gunnies, realized ₹660. Crew 10 men, and 2 passengers. No loss of life.

27. The British wooden barque BUSTON VALE [of London, 412 tons register, official number 47765, age 20 years, classed at Liverpool in American Lloyd's] , from Mauritius to Maulmain in stone ballast. On the 17th May the barque, whilst in latitude 17° 23′ N., longitude 91° 28′ E. (Bay of Bengal), encountered a cyclone and was dismasted and driven up the Bay. Subsequently she was found lying anchored and helpless 9 miles outside the harbour of Akyab, when the Indian Government steamer *Enterprise,* which arrived from Rangoon on an inspection of the Oyster reef lighthouse, took the *Buston Vale* in tow on the 29th May and proceeded into the harbour. It appeared, that the cyclone's vortex formed in the southern part of the Bay of Bengal about the 16th May, and struck the land near Akyab at 2 o'clock on the afternoon of the next day, continuing to blow with great violence till 2 A.M. on the morning of the 18th. The Surveyors proceeded on board the barque *Buston Vale,* lying in Akyab harbour, on the evening of the 30th May for the purpose of examining the state of the vessel, which had arrived that morning in tow of the Indian Government steamer *Enterprise.* They reported after a careful survey that the barque had lost both fore and mainmasts short off by the deck with all belonging to them, also jibboom and mizentopmast, both a few feet from the cap ; the shrouds of the mizen rigging (wire) were badly strained, and some of them gone in the way of the dead eyes ; the starboard chain plates were more or less strained and started, two of them altogether broken ; the bowsprit was slightly sprung in the way of the holding down band, but it appeared to have been an old defect, the wood being a good deal decayed in the way of the band. On examining the hull under the deck they found in the way of the fore chains evident signs of straining, there being leaks through the sides ; the decks also leaking a good deal, especially along the waterways. Above deck the woodwork forward had suffered exceedingly ; knightheads, catheads, and head rails were all more of less started and broken ; the toprail of bulwarks broken in the way of the foremast ; all the iron work in connexion with the head bolts, gear-bands, &c., had been drawn or broken. On mature consideration, and taking into account the then depressed state of the shipping trade, they were inclined to estimate the value of the barque at not more than £ 2,000 ; the cost of repairs at not less than ₹20,000 ; and that her value after repairs would be £3,200. Regarding the most advisable course to be adopted in the matter of repairing and refitting the barque, the Surveyors reported that, being guided to some extent by the positive statement of the master, that the *Buston Vale* bumped heavily for some hours on the wreckage of the masts, yards, &c., before they could be got clear, and consequently that the copper sheathing must have suffered considerably, necessitating the vessel being overhauled in and out before she could be made seaworthy. There being no means of docking her at Akyab, the Surveyors were of opinion that the most advisable, as well as the most economical, course would be to have the barque towed to Rangoon, and they more particularly recommended that course, because the services of the British India Steam

Navigation Company's steamer *Chupra,* then in port, were available at a moderate cost. She made no water, and could have proceeded under tow without temporary repairs further than putting the pumps into working order, they having been disabled. Original value of *Buston Vale,* £1,200. She was subsequently sold by public auction at Akyab for about ₹4,500. No cargo on on board. Crew 14 men. No lives lost.

(It was reported that the barque Buston Vale was bought up by the Indian Government as a wreck, and was subsequently towed to Rangoon, by the Indian Marine steamer Enterprise, for service at that port as a hulk.)

28. The Native craft KHUTOWPERSAD [of Bhúj (Cutch), 21 tons register, official number not reported, age 15 years], from Keti bandar to Mundra, with a cargo of rice, bajree, and ghee. At 2 P.M. on the 17th May, during rough weather and heavy sea, the craft sprung a leak and sank outside the Keti river mouth of the Indus (Sind coast). Value of craft, ₹2,000; cargo, ₹1,567. The crew, 5 men and 4 passengers, were all saved by a boat belonging to the port of Kurrachee.

29. The Russian wooden ship ALEXANDER [of Obo, 692 tons register, official number 193, age 12 years, classed at Veritas 3/3 L.I.I.], from Akyab to Falmouth, with a cargo of 924 tons of rice, valued at £6,009. It seemed that the ship loaded at Akyab a full and complete cargo of rice, consisting of 9,245 bags, and was then tight, strong, and staunch; the hatches properly secured and furnished with three double paulins, the masts and pumps secured with double mast coatings, and she was in every way fitted for her intended voyage. The master deposed that at 4 o'clock on the morning of the 17th May the pilot came aboard, and at 9 A.M. he unmoored the vessel, got her underweigh, and made sail, the wind being fresh from N.E., with cloudy sky and showers of rain; barometer 29·52. At 11·15 A.M. the pilot took in all sails and made them fast, and brought the vessel to anchor about a mile below the Main wharf in 4 fathoms of water with 60 fathoms of chain out on the starboard anchor. He said that the pilot went ashore, without having obtained his permission, an hour afterwards, in a boat, stating that he would return in the evening and proceed with the vessel, provided the sea on the bar decreased. But, before leaving, the pilot instructed the first officer if the wind increased to drop the port anchor and to pay out more chain on the starboard one. The master said, when the vessel was anchored he did not take any bearings, but he noticed that the flagstaff on Fakir point bore S.S.W. The pilot alleged that the lower foretopsail, the upper maintopsail, and the inner jib were set when the ship got underweigh; but, as there was a strong N.E. wind blowing a topgallant breeze, he had to wait till the flood-tide made. The glass was 29·50, and it was fine monsoon weather. He proceeded down with the vessel, and when about four or five ships' length from the Main wharf he anchored, as was customary, with only one anchor in 5½ fathoms at dead low-water spring tides, the maintopsail being aback with an easterly wind. After letting go the starboard anchor, the pilot said that the vessel was lying wind-bound East and West with her stern to the shore; it was flood-tide, and the ship would not swing to the tide; the chain was tight, the vessel was all aback, and it was good holding ground. The pilot stated that he did not take any bearings, but simply observed the pilotage marks, *namely,* Fakir buoy, on with Passage rock, and the two upper black buoys in line. The first officer said that when the vessel anchored she was about three-quarters of a mile off the beach and a mile below the Main wharf. The Port Officer of Akyab stated that at about 9 o'clock that morning the wind was moderate from N.E. with light rain, but the weather was rather hazy. The wind afterwards increased a little towards the North, and that by noon it was blowing fresh, veering to the eastward. The barometer, being then 29·45, was falling, after which the

wind steadily increased and the barometer continued falling, and at 8-30 P.M. it stood at 29·15. The master stated that at 3 o'clock in the afternoon the wind began rising, and he dropped the port anchor, veered out 25 fathoms on it and 85 on the starboard. During this time it being ebb-tide, the ship was riding with a slack cable up till 8 P.M.; at dusk the wind was S.E., and had freshened. At 8 P.M. the wind was still continuing to rise with great force and accompanied with heavy rain, whereupon the master then paid out 90 fathoms on the starboard and 30 fathoms on the port anchor. Shortly afterwards the weather became so thick that it obscured the land, thus rendering it impossible to see the nearest objects. The master was positive that the lead was hove for the purpose of finding whether the ship was driving into shallow water, but before this was done the vessel struck the ground between Marine creek and Fakir point. The first officer swore that he felt the chain from time to time, and that there was nothing to indicate whether the vessel was dragging, and that the lead was never put over the side. The Port Officer of Akyab said that at 8-30 P.M. the cyclone was at its height, the wind being from the S.W. Half an hour afterwards the barometer commenced to rise rapidly, the wind veered more to the southward and came up in heavy squalls, when by midnight it had considerably moderated, and the wind went round to S.W. towards the morning, after which it gradually subsided. The master said that he could not see anything during that afternoon, nor perceive that the vessel was dragging, but saw land after the ship went ashore, when he observed the wreck of a vessel on the beach. The sea immediately commenced to break over the *Alexander* and smashed the boat which was hanging at the davit, and seriously hurt the second officer and the carpenter. At 10 P.M. the pumps were sounded twice, and the vessel was reported to have made no water. The *Alexander*, after having bumped several times, heeled over on her port side. The master stated that, when the vessel first struck, the wind was from S.E., blowing with its greatest force, the barometer then being 29·08. The barometer went down steadily all day—not very fast. The master positively stated that the barometer was not low enough to cause any suspicion at that time of impending bad weather, because two years ago he was in a similar cyclone off the Mauritius when the barometer marked 28·47. He said that there was nothing to lead him to take any extra precautions to see whether the anchors were or were not dragging. He consequently did not pay out more chain, and this he accounted for—(1) because it was slack, and (2) the heavier chain on the starboard side being all out, it was doubtful whether the lighter chain, which was all she had left, would stand. The pilot alleged that when he got underweigh he had no idea that there was any sign of approaching bad weather, for he intended taking the *Alexander* to sea at once, but found that the vessel was not quite ready, the master having to post some letters, but otherwise the vessel was ready. The pilot, after he had got one anchor up and was short with the other, inquired from another pilot, who had just arrived in town, how the weather was, when he was told that there was a heavy sea outside. No doubt there was a very heavy sea on the bar, and for that reason the pilot was unable to take the vessel to sea; he further said that he would have piloted her out anyhow had not the master detained the vessel. The practice amongst pilots was to go ashore when unable, through stress of weather, to take a vessel to sea, and return if it was favourable for getting out. In the face of such evidence, therefore, the pilot was justified, and it seemed that he went on shore with the knowledge and consent of the master, but did not go aboard again as the sea was too heavy. He alleged that before going on shore he had a glass of wine with the master, and indeed the first officer gave him money to make some purchases. It seemed, however, that the cyclone's vortex formed in the southern part of the Bay of Bengal about the 16th May, and struck the land near Akyab

at 2 o'clock in the afternoon of the 17th, continuing to blow with great violence up to 2 A.M. of the 18th. The master said that during the cyclone there was such a rise of water in the river that after the vessel had grounded she swung round with her stern from the West to N.E. and remained at South. About midnight the wind shifted to S.S.W., then to S.W., when it calmed down. The second officer stated that the vessel commenced making water soon after she struck, and that it was not then known; but that she was making water at first very slowly there could have been no doubt. At 5 o'clock on the morning of the 18th the wind was N.W. with rain and thunder, when it shifted to S.S.W. Shortly afterwards it was reported that the water increased in the hold so rapidly that by 9 A.M. there were 4 feet of water in the hold; and although the pumps were kept continually at work, it gained on the vessel. The master confidently expected to float her at high-water, and accordingly asked the pilot to come aboard in order to take the vessel into a safer berth. This the pilot refused, and explained his grounds of objection, stating that it would involve very great risk and responsibility, on which account he was unwilling to remove her, as she would probably sink as the water in the hold continued to increase. At half past 10 o'clock A.M. the same day the vessel again swung round, but this time with her stern to the eastward, and remained at North; the sea being gone, a stern line was put out with the stream anchor, after which she was made fast alongside of the bank. The water in the hold during the day having increased to 9 feet, the master procured coolies from shore, and at 10 P.M. pumping was commenced, and was vigorously continued night and day; failing to gain on the leak, it was given up on the 2nd June, the water in the hold rising and falling with the flow and ebb of the tide. The *Alexander* was surveyed on the 22nd May. The Surveyors reported that they found the ship lying broadside on to the harbour beach, about a quarter of a mile below the stone wharf at Akyab, with nearly 8 feet of water in her hold, the pumps going constantly. Some portion of the cargo—rice in bags—had already been discharged, and lighters were alongside, but the work was at a standstill for want of coolies. The Surveyors were unable to determine the nature or extent of the damage the ship had sustained by the grounding, nor could it have been possible to do so until all the cargo was out of her. They therefore recommended that every possible effort be made to push on with the work of discharging the cargo whilst the fine weather lasted, also that all the vessel's yards be sent down and landed in a place of safety, and the topmast secured so that her stability might not be endangered when empty. Relays of coolies should be engaged to keep the pumps going day and night until all the cargo was out. On the 2nd June one European diver examined the hull of the *Alexander* from stem to stern on the starboard, whilst another European diver examined the port side. They reported that on the starboard side from the stern post all the copper was gone off completely from the keel as far forward as could be surveyed; and in several places under the bilge the copper was sunk into her side as if she had been resting on some hard substance, and the stern post was in very bad order from the lower rudder gudgeon downwards. They also found at the stern the copper started, and were of opinion that the butts and the seams were also started, and her false keel had fallen off. On the port side they found that the keel was stripped of her copper, and the copper was off from the side, also from the lower gudgeon of the rudder; this stripped space extended as far forward as the afterpart of the main chains, and about 3 feet up the side from the keel. They also found at the centre part of the forechains the copper was gone, and the planks aft, where the copper was stripped, very rough and damaged, as if they had been in contact with some hard and rough substance, and the wood or planks seemed badly chafed. They were of opinion that her false keel was gone. The Surveyors reported that they boarded the vessel

on the 2nd June, and found that all the rice cargo had been discharged, and the masts and yards sent down as recommended in the former survey. The *Alexander* was lying aground on the beach at high-water neap tides, and that she had 5½ feet of water in her hold. The pumps, which were kept constantly going, having failed to keep down the water, they were abandoned. The Surveyors, on examining the ship inside, found that the water was rushing in from the port side of the stern post about 4 feet below the 'tween deck beams in a continuous flow, but, owing to there being so much water in the hold, they could not observe any other leak, although the manner in which the water filled and ran out of the vessel as the tide ebbed and flowed clearly indicated that the bottom must have been badly strained and injured somewhere. Having perused the divers' report as to the state of the bottom, the Surveyors were of opinion that if there was dock accommodation at the port of Akyab the ship might have been repaired within her value, but with no such means at hand she was not safe to have been towed to another port; and the temporary repairs necessary to enable her to do so were too heavy to have been executed on the beach where she lay. They therefore advised that the *Alexander* be sold for the benefit of all concerned; she, being built of soft wood, was 12 years old, and had only one year more to run before re-classification. The Surveyors estimated her value before the disaster at about £3,500, and the cost of towage to, and repairs at, Calcutta, had she been in a fit state to go there, would, they estimated, have been about £2,520. Original value of *Alexander*, £2,800. The cargo was partially lost, value R21,734. The bare hull was sold by auction at Akyab for R2,100; and the sale of her stores, fittings, &c., fetched, R6,762. The net proceeds of the sale of 6,388 bags of the cargo amounted to about R30,963, but the remainder, 2,857 bags, being rotten, were thrown into the sea. Crew, 17 men. No lives lost.

[A Special Court of Inquiry was held at Akyab on the 11th and 12th June by the Deputy Commissioner of the Arakan Division in the District Magistrate's Court under section 7 of Act V of 1883 (The Indian Merchant Shipping Act), to investigate the circumstances relating to the stranding, in Akyab harbour, of the Russian ship *Alexander*. The Court recorded that, after taking the evidence of the master, and first and second officers, it considered it advisable to examine the pilot and the Port Officer, whose evidence appeared to have been material, and for this purpose it adjourned the inquiry for one day. The Court, after considering all the evidence in this matter, were of opinion that the Russian ship *Alexander* went ashore from stress of weather, and that nothing that could have been done could possibly have prevented her from going ashore. The Court observed that in their opinion the master showed an error of judgment on the following points:—(I) in not taking cross-bearings when he anchored; (II) in not anticipating a storm; (III) in not getting down his topgallant yards; (IV) in not paying out more cable earlier in the day; and (V) in not keeping the lead going. But the Court were of opinion that the master's conduct did not show incompetency or misconduct, nor any wrongful act or default within the meaning of Act V of 1883, as they understood it.]

(It was subsequently reported that this wrecked ship was pumped dry and got off the beach, and, after having been repaired by the present owners, was sent to sea again.)

30. The British Indian schooner VEDASUNDRALETCHEMY [of Negapatam, 53 tons register, official number not reported, age not known, but reported to have been very old], from Colombo to Jaffna, with a cargo of iron, rice, gram, &c., valued at R2,525. The schooner on the 17th May, when in the Gulf of Manár, met with heavy weather, and about noon the foremast went by the board, and the tindal anchored her in order to clear away the wreck; but the schooner became unmanageable, and, plunging violently, frightened the tindal,

who instead of letting go another anchor and steadying her with the aid of sails, deliberately cut the hawser and allowed her to drift ashore with the object, as he alleged, of saving life. At 6-30 P.M. she stranded on the beach 4½ miles S.W.byW. of Ramesvaram village. Value of schooner not reported; cargo worth ₹2,265 was lost and the remainder damaged. The crew (9 men) and 20 passengers saved themselves by jumping ashore.

31. The British Indian craft FATTEMUBARAKHA [of Gogha, 14 tons register, official number 194, age 50 years], from Gogha to Bhagvá, with five heads of cattle. At 4 A.M., on the 18th May, when near the Bhagvádándi lighthouse (Gulf of Cambay), the craft, owing to the roughness of the wind and sea, struck on a sand bank and filled with water. She very soon after broke up. Value of craft, ₹500; cargo, ₹75. Crew, 7 men and 2 passengers, saved themselves by swimming to the shore.

32. The British Indian muchwa DARIADOULAT [of Gogha, 8 tons register, official number 197], from Broach to Gogha, in ballast. On the 26th May, when 6 miles to the West of the entrance to the Narbada river (Gulf of Cambay), the muchwa met with heavy weather; she lost her rudder and became unmanageable; at 12 A.M. she was driven on to a sand bank, where she afterwards broke up Loss, value ₹400. No cargo on board. The crew, 5 men, were saved.

33. The British wooden barque ANNIE BRAGINTON [of Aloa, 413 tons register, official number 28329, age 24 years, classed at Lloyd's A.I. for 10 years from 1875], from Gopalpur to Cochin, with a cargo of 115 tons of rice, valued at ₹8,000. The master stated that he brought the vessel round from Bombay to Gopalpur with about 230 tons of stone ballast and reached Gopalpur on the 18th April, when she anchored in the roadstead in order to load a cargo of rice for Cochin. It appeared that she was an old vessel built of wood at Shields in 1860, and had three bowers, one stream, and three kedge anchors on board; that everything was then all right and the barque was in good order. The master said that the vessel was lying in the roadstead with two anchors down from the very first, as he observed that there was a nasty ground swell on with a fresh wind. On the 23rd April he altered the barque's berth and brought her to an anchor in another position with the object of loading cargo, and with that view he threw overboard from 50 to 100 tons of ballast. On that same day he had the vessel surveyed for the purpose of enabling the shipper to insure his cargo. From the 18th April up to the 28th May the vessel had been loaded with only a part of her cargo, *viz.*, 115 tons, and that was during 12 working days, the charter party having allowed the merchant 25 working days for the completion of the cargo. On the 30th April the vessel was lying in the roadstead in 8 fathoms of water, with both bower anchors down, with 45 fathoms of chain on one anchor and 90 fathoms on the other; the weather at the time was bad, with strong squalls of wind, and there was a very heavy swell on. The barque, being exceedingly light, short, and high, jumped quickly and violently. At 8 P.M. the starboard chain (45 fathoms out) parted, owing to the excessive jerking of the vessel, and the master immediately bent the spare anchor, a starboard one, and put it over the bow in readiness, but it was not dropped as there was not enough cable to veer on the riding anchor, the port, and the weather was too bad to permit of heaving in any of the chain that was down. Thus the *Annie Braginton* rode at one anchor all that night. On the following morning, the weather having moderated, the master said that he hove in the chain to 30 fathoms on the port anchor, let go the spare anchor, veered out 90 fathoms on the port anchor and 60 on the starboard, and put springs (coir tow lines) on both cables. Afterwards, on the 4th May, the weather being fine in the morning, two shore boats (masula boats) were employed sweeping for the lost anchor, but were unsuccessful in their search owing to the heavy sea having drifted the boats

off. On the 16th May the vessel had taken in 1,557 bags of rice, which was equal to 115 tons; she was then shifted to the ballast ground, where the rest of the ballast was discharged. On the 23rd May the *Annie Braginton* was riding with 30 fathoms on the starboard and 75 fathoms on the port anchor, the remainder being hove in; the weather was again bad; there was not much wind, but there was an exceedingly heavy swell. The starboard anchor parted with 30 fathoms cable at 11 P.M., whereupon the master then paid out 90 fathoms on the port anchor, put double springs on it (*i.e.*, both ends of the tow lines on her) and rode at single anchor. The master stated that, having no more bower anchors, he rigged with a kedge at the back of 15 fathoms of stream chain over the bow in readiness, and he also sent the topgallantmast down on deck to allow the vessel to ride easier. She remained in this position till the 28th; in the meantime the master swept for his second anchor, but with no good results; and there being no appliances at Gopalpur for finding or relifting lost anchors, &c., it could not be recovered. On the 28th the weather was again very bad, and the vessel jumping violently, she parted from her last anchor at 3 P.M., and commenced canting with her head towards the breakers on the shore; the crew instantly unshackled the broken chain by the direction of the master at the 90 fathoms shackle, which was just inside the hawse, and having cut the gaskets of the foresail, the *Annie Braginton* was enabled to wear round, but not till she was just on the breakers. She then stood out to sea on the starboard tack. The master said that he found the barque excessively tender; and, the weather continuing bad, he kept her under lower maintopsail until daylight, when she was put before the wind again, as the cargo she had on board was barely sufficient to ballast her. The master accounts for his not having been able to get the barque into False Point harbour was that the current had carried the vessel past during the night on the 29th May, and that, as she was too tender, the crew were unable to work her back to it. He said that neither could he work the vessel up to the Hooghly river, and that, being without anchor or ground tackle, no pilot would have undertaken to take her up the river. He would then have had to take his chance of getting a tug steamer just as he wanted her, and could not count on such luck. In this way the barque was kept running before the wind; the master, after consulting his chart, decided to make for the Balasore roadstead, it being a most important place on the coast as well as the nearest to Calcutta, where he could easily get a supply of new anchors and chains. Accordingly the lead was kept going, when on the 30th May the master made the Palmyras reef buoy and steered from it N.N.W.; at noon the course was altered to N.byW., and at 3 P.M., when the Chandipur flagstaff was sighted bearing by compass N.N.W., the vessel was brought up with a stream anchor backed by a kedge and with all available chain (120 fathoms) in $3\frac{1}{4}$ fathoms of water, the tide then being two-thirds ebb. The master said that he hoped that at Balasore the barque would be sheltered from the wind and have a quiet sea, but he was sorely disappointed, inasmuch as that in about half an hour after the vessel was brought up she parted from the cable again. The master at once set the foresail and kept her for the shore, having again unshackled the broken cable; and, as there was no more cable, he proposed to beach her as safely as possible for the purpose of saving life and property. He wished to put her on shore with her stern out to sea, and with that intention he kept the foresail set all night, that the vessel might be driven well on towards the shore (to harden her on); she took the ground at 4 P.M. During the night there being a very strong surf running, the vessel continued to thump heavily. At daylight on the 31st it was found that she was near the land; but at low-water she was drifted further up on the beach; she lay quite fast and almost dry near the mouth of the Balasore river, about $1\frac{1}{2}$ miles N.byW.$\frac{1}{2}$W. from the Chandipur flagstaff (Orissa coast), in only a foot

of water. At noon with the returning tide she was partly afloat again; on her driving still further upon the beach and bumping heavily, the master and crew got into the life-boat and deserted the vessel, landing safely on shore. Value of barque *Annie Braginton,* £2,000; cargo, partially lost, value R2,775. The hull, with masts, yards, and a portion of her rigging was sold at Balasore by public auction for R2,500 in one lot, and her remaining rigging, including sails, stores, &c., for R2,400; about 170 bags damaged rice, together with 837 bags sound ones, were separately disposed of by the master and fetched approximately R4,599. Crew, 12 men and one passenger (the master's wife). No lives lost.

[A Marine Court of Inquiry was held at Balasore on the 24th July by the Collector of Customs under section 7 of Act V of 1883 (The Indian Merchant Shipping Act) for the purpose of making an investigation into the cause of the stranding and subsequent loss of the British barque *Annie Braginton.* The Court recorded that the *Annie Braginton* sailed round from Bombay to Gopalpur with nothing in her but stone ballast to the extent of from 220 to 240 tons. She arrived at Gopalpur to take in a cargo of rice on the 18th April. It certainly was a most unfavourable time of year for such a sailing vessel to have arrived on such a coast, for the southwest monsoon was on with high wind and squalls and a very bad surf. This made the loading of the cargo very difficult, and possible only at long intervals, which involved a long detention on a dangerous coast in a bad season. In the case of the *Annie Braginton* the danger was increased by the fact that none of the officers and crew were acquainted with the west coast of the Bay of Bengal. The vessel remained at Gopalpur from the 18th April to the 28th May, and during all that time had been able to take in cargo only on 12 days, and had received only 115 tons of cargo. Having reached Gopalpur on the 18th April, nothing happened till the 23rd April, when the vessel was moved to a different position in the roadstead (to facilitate loading), and a quantity of ballast from a quarter to half of the whole (the evidence varied) was thrown overboard. On the 30th April the barque in 8 fathoms lay with both bowers down and 90 fathoms of chain out on the port, and 45 fathoms on the starboard anchor. The weather was bad and squally, with a heavy swell on. The vessel was short, high and light, and jumped very much. The result was that the starboard cable (45 fathoms out) parted. On the 16th May the *Annie Braginton* having received 115 tons (1,557 bags of two maunds each) of cargo, all the rest of her ballast was thrown overboard. On the 23rd May a repetition of the weather of the 30th April acting on a vessel lighter than before, and probably therefore jumping in a more lively fashion, brought about a similar accident. The barque was riding with both bowers down, 75 fathoms on the port and 30 fathoms of chain on the starboard anchor, when the starboard chain again parted. The *Annie Braginton* had now only one bower left and had nothing to fall back upon in the event of losing that, but a stream anchor with such support as could have been given to it by backing it with a kedge. She remained riding with 90 fathoms of chain on the port bower till the 20th May, when that also parted. She fell off with her head towards the shore; the master promptly wore the vessel and just escaped the breakers of the surf. He then stood out, being obliged to sail his vessel before the wind, because she was too light (no ballast and 115 tons of cargo) to sail on a wind or to tack. The Court observed that this ended the first stage of the disaster. It must have immediately suggested itself that the chain cable, which thus parted three times (it afterwards parted yet a fourth time), was unsound and unserviceable. It could not resist the lively jumping of a light vessel in such weather as was to be found on the Ganjam coast at that time of the year. It seemed to the Court very possible that if the vessel had been heavier the cables might have stood the strain; and it was certain that the lightness of the

hull had much to do with their parting. It was to this cause that the master of the barque attributed the accident of the 30th April. Therefore, it appeared to the Court that it was an error of judgment on his part to have made his vessel still lighter on the 16th May by throwing out all his remaining ballast, when he had nothing but 115 tons of cargo, a quantity which was quite insufficient to stiffen his vessel and enable her to stand up against the wind. Again, when he lost his second best bower anchor on the 23rd May, and had but one left, the Court was inclined to think it was an error of judgment on his part to have remained at Gopalpur and tried to ride out at his last bower anchor till he could get his cargo on board. He must have known by that time that it would have been a long and precarious business to get his cargo in; he had good reason for mistrusting his cable. If it parted again he would have no bower anchor left, and kept his vessel so far unserviceable that he could only sail before the wind, whilst he could only look for continuous bad weather. With a cable that had twice parted already from causes still continuing to operate, it seemed to the Court that there was what amounted to a probability that it would part again. In that case there would have been nothing for it (if he was able to have escaped going on shore in the heavy surf at Gopalpur), but to have done what he subsequently did, *viz.*, to run before the wind in bad weather along a coast of which nothing was known except that it was dangerous, without any effective means of bringing the vessel up in case of necessity. The Court considered that it would have been more prudent if he had elected to have made that run in company with his last bower anchor, rather than to have taken the somewhat imminent risk of having to make the same run without it. Apart from these two points, which struck the Court as being errors of judgment, the conduct of the master, officers and crew seemed to the Court to have been open to no exception. The Court remarked that the immediate cause of the disaster was the repeated parting of the cable, presumably from its being unserviceable—a circumstance over which the master had no control. So far as the Court was able to form an opinion, it entirely concurred with the two nautical members of the Court that the master showed skill and caution, and that he and his crew conducted themselves like good seamen. One nautical member said that the barque *Annie Braginton* parting from all her anchors and chain after three various occasions was owing to the state of the weather, and from those reasons had stranded off Balasore (Chandipur flagstaff); the master and officers had done everything in their power to avoid the same. There was no alternative under the above circumstances but to beach her and save life. The other nautical member said that the *Annie Braginton* parted from her anchors on three different occasions at Gopalpur in consequence of very squally weather, and had been stranded at Balasore from the same cause; the master and officers had done everything in their power to avoid the same, and after having parted from her fourth anchor at Balasore there was no alternative but to beach her under the circumstances to save life, there being no possibility of getting out of that position. The Court observed that when the master found himself obliged to run before the wind unprovided with bowers, he made up his mind to run for shelter, bring to in quiet water with his stream anchor, and send for a supply of anchors and chain cables. He seemed to have slightly hesitated between False Point harbour and Balasore roadstead. He had a preference for Balasore roadstead, as being a most important place lying in a deep bay apparently sheltered from the prevailing winds and close to Calcutta. He laid to at night on the 30th May, apparently with an idea of having a look in the morning at False Point, but the current carried the vessel beyond it, and the master then made for Balasore roadstead by the chart, using the lead all the while. If any one on board had known the coast, and brought the vessel up at Laichunpur in the south of the bay, the master would

have found that shelter from the wind and that quiet water which he vainly expected at Balasore. He stood in as close to the shore as he dared, in the hopes of getting quiet water and easy riding, and dropped his stream anchor backed with a kedge in 3¼ fathoms bearing out 120 fathoms of chain, which was the entire quantity that he had left. Again, his chain parted and then there was nothing for it but to beach the barque to save life. This he did; and the President concurred with his colleagues in thinking that from the time the vessel broke away from Gopalpur to the time when the master landed all hands in the life-boat at Balasore his action and conduct were the best possible. [The Court were of opinion that the immediate cause of the loss of the *Annie Braginton* was her having unserviceable and defective chain cables. But the Court considered that that chain cable could not now be examined, for every link of it was at the bottom of the sea. At each of the four separate partings the chain was unshackled, and at the last parting the last link was unshackled and lost. The President remarked that his colleagues told him that this was a proper and even necessary course, and he did not doubt that it was so. The master and officers were accordingly acquitted.]

JUNE.

34. The British iron screw steamer GALATIA [of Barrow, 2014 tons register, official number 83975, age 3 years, schooner rigged, classed at Lloyd's A.I. 100], from Calcutta to Bombay, with a general cargo. It appeared that the steamer left Calcutta on the 4th June, and, after touching at Colombo, sailed for Bombay, *viâ* Tuticorin, with a cargo of rice, cotton, senna, gunnies, castor-oil, iron, and coals, valued at £50,000. The master took a native pilot on board from Colombo for the purpose of piloting the vessel into Tuticorin, but he was of no practical use in the working of the steamer. Nothing of importance occurred on the voyage, and neither did the vessel touch the ground anywhere. The third officer said that he came on watch at 8 A.M. on the 15th June, and remained so until he was relieved by the second officer; the vessel was then steering her course of N.W. by the standard compass. The second officer stated that he was on watch from noon on that day in charge of the telegraph whilst proceeding into the Tuticorin harbour, and was on the bridge along with the master. The vessel had been steering various courses. Shortly after 12 o'clock A.M. on that day, the Trichendur pagoda was sighted on the port bow, bearing N.W.byW., by compass, at a distance of 4 to 5 miles, which he reported to the master. From the pagoda the steamer was steered N.¼W., and the second officer afterwards, on being shown the course on a chart, said it might have been N¼ E., but he was not certain. The light was kept broad on the bow, but, after making it ahead, the helm was ported in order to bring it on her bow. After making the light a quartermaster was put in the chains when in 10 fathoms of water. Subsequently the lead was hove, and a cast of 8 fathoms was obtained with the lighthouse bearing N.W.byW., the soundings then shoaled very gradually till she anchored in 5½ fathoms. All hands were at their stations, the first officer was on the forecastle head letting go the anchor. The second officer was positive that another cast of 5½ fathoms was taken after the anchor was dropped. The starboard anchor was then lowered with the windlass; it went down all right, and half an hour afterwards the port anchor was dropped for the purpose of keeping the vessel from swinging inshore with a long scope of chain on the other; the steamer was going astern, and had quite lost her headway when the anchor was dropped. The master said that he knew nothing about the rise and fall of the tide in the Tuticorin harbour, and that he did not recollect whether he arrived during the time of high-water, but he considered that the rise could not have exceeded 3 feet, the vessel's draft being then 20 feet; consequently he thought there was enough water, and paid no atten-

tion. On the same afternoon, at about 5 o'clock, the steamer was brought up to her berth in the harbour and anchored. The master said that when the anchor was dropped the steamer's head was about N.W., and the lighthouse bore W.byN.¼N., magnetic; the second officer took a bearing of the lighthouse, which bore W.byN., and an island N.byW.½W. true, and entered those bearings at once into his scrap log, which was kept in his berth, and which was, as usual, made over every evening to the first officer, who afterwards copied the same in the log. There was a barque inside of her anchored to the northward, and a steamer outside from a quarter to half a mile to the eastward also at anchor. The master said that he did not take any bearings, but that the barque ahead was to the N.W. of his vessel, and that was his principal guide, together with the soundings. The weather was fine and the wind was blowing very hard off the land all the time. The steamer was riding with both anchors down, 65 fathoms on the starboard and 15 fathoms of chain on the port anchor, the chain on the latter being allowed to run as it pleased up to 30 fathoms. The master and chief engineer went ashore after the vessel was moored, and remained mostly on shore. During the two days the vessel stayed in port, it was observed by every one that there was nothing wrong, for the steamer always swung to her anchors, the quartermasters taking the anchor watches; the second officer remained aboard busy looking after the cargo and the vessel being worked, receiving cargo till 7-30 P.M. on the 16th and up to midnight of the 17th June, when the third officer finished taking in the last lighter of cotton in No. 2 hold. As usual, twice daily, morning and evening, the carpenter sounded the wells and marked the result on a board, which was hung at the entrance of the engine-room. It seemed that he also kept a book of soundings of the wells, which was occasionally shown to the first officer, but there were no express orders to that effect. The last time the wells were sounded was at 5-30 P.M. on the 17th, when it was found to be the usual soundings—"one inch in the wells." Up to midnight no other soundings were taken. On the morning of the 17th the master sent word to the first officer to have easy steam about 10 P.M., to take in the port anchor, and to heave short on the starboard one. The vessel was then heading to the southward with a light wind from the land. Shortly afterwards the first officer, acting on his own responsibility, picked up the port anchor, fearing otherwise that the steamer might get atop of it, as it was a short scope, and also as an extra precaution in case of a swell coming away from the S.E. At 5 P.M. the chief engineer came aboard and went round the engine-room, but observed nothing wrong, no complaint being made about anything having happened during his absence. At 11 P.M. the master returned aboard and asked what the draft of water was and what trim she was in, when the first officer told that it was near 22 feet forward, but there being a wash of water it was not distinctly known. A little after midnight the first officer said that he hove the starboard chain up to the 15 fathoms shackle on the windlass at once. There was a man at the wheel on the bridge and another in the chains; the second officer was on the bridge attending to the telegraph, and all hands were clearing the deck. The first officer said that he did not recollect how the vessel's head was just before getting underweigh, but knew she was heading well to the southward, whereas the master stated that the steamer's head then was S.½E. by compass with half a point error. The weather at the time was fine; the wind was a moderate breeze from the westward and the night was dark. In heaving up the vessel paid off immediately, and her head was brought round to the wind heading for the island. After the *Galatia* was got underweigh, the light was well on the starboard bow with the wind, and she was going round from S.S.W. to her course on S.E. The quartermaster said that when the vessel was going to start her head was inshore, but might have been nearer to the West, and pointing for the island on which the light was,

the light being about 2½ points open on her starboard bow. When all was ready for sea the master went on the bridge and ordered the starboard anchor to be hove right up, when the first officer said that the anchor was up. Everything appeared to have gone on well up to the departure of the steamer; that there was nothing noticed at the time of starting, not even a vibration, and all the witnesses alleged that the anchor came up quite clear, and did not strike the vessel, neither did they feel the engines move at all until the anchor was hooked on nearly up to the forecastle. The master said that a very short turn of the engine with a short chain would have fetched the vessel on her anchor, but she did not go ahead on her anchor on that occasion, and neither did the engines move until he gave instructions by the telegraph. The master and carpenter both said that the windlass was a very fine one; that it worked well, and never ran back a fathom or so. At 12-30 o'clock on the morning of the 18th June, after the anchor was up, the order was given to starboard the helm, which was immediately done; after that the steamer went ahead slow. The master said that the vessel might have gone half speed, but he was positive it was not full speed; she went on a S.E. course. The second officer, who was on the bridge, was ordered to steady the vessel by the standard compass on her course, giving the steamer a good offing. About twenty minutes after starting, the lamp trimmer went down to the chain locker for a light left there by the men stowing away the chain, and whilst descending the steps backwards he felt water under his feet, and reported it. The first officer was on the forecastle, and had nearly finished securing the anchors and getting down the derricks, when about one o'clock that morning the lamp trimmer reported water, whereupon he at once told the master that the chain locker was within 6 feet of being full. The master said that he at first thought that one of the tanks had burst and the water had escaped into the chain locker; but, as soon as he was on the deck, he abandoned the idea, as he instantly saw that the vessel was down by the head. Within five minutes the master returned to the bridge, sent for the chief engineer immediately, and ordered him to put on all pumps; sounded No. 1 hold, and found 10 feet of water. The engines were slowed and the vessel turned back to her anchorage turning round through East and N.E. up to North, after which the helm was steadied with the lighthouse open on the bow. The 'tween deck hatch was next lifted off, and on examining the hold it was observed that the water was rising above the coals, which was the cargo in that hold. The water still gaining against the pumps and coming close to the 'tween deck hatch, the hatch was shored down from the upper deck, as well as the chain locker, which shortly afterwards burst up, the water rushing on the 'tween decks. At this time the master consulted with the first and second officers and the chief engineer, when it was decided to beach her—the vessel being then down to the hawsepipe by the head; the master feared that if she went down more by the head, especially if the bulkhead between Nos. 1 and 2 gave way, he would lose control over her, when she would evidently sink in deep water. The master then gave up all pumping in No. 1 hold and attended to No. 2. He said that he could find no special place where to run her, and simply ran on full speed, going from 7 to 9½ knots until she grounded, keeping her head N.W. The water came along the starboard side in a continuous stream through the bulkheads from the forward parts, and the cargo moving about with it knocked up the shores of the hatchway, but the hatches never lifted. The *Galatia* touched very soon after they agreed to beach her, and the pumps were unremittingly worked, but in spite of all efforts the water was gaining so fast that no pumping would have had any effect, the forecastle being nearly full before she took the ground. There was not much sea on, and consequently it was considered unnecessary to shore up the bulkhead between Nos. 1 and 2, as the lower hold was well filled with cotton

and coal. After the steamer was beached inside the Tuticorin anchorage in about 28 feet of water with the lighthouse bearing W.$\frac{3}{4}$S., distant about 1$\frac{1}{2}$ miles, the engines went on slow speed. She struck the ground gently, the lead having been kept going all the time. Immediately she struck the starboard boat was lowered, and the first and second officers went round the steamer with the chief engineer to ascertain the locality of the leak, but could not make out anything; after which the first officer went on shore for assistance. At 6-30 A.M. native divers arrived, and after much diving they reported a large hole in her port bow, one plate from the keel, abreast of the side lighthouse, whereupon the crew immediately prepared a sail with beds tacked on, and placed it over the hole and resumed pumping, but to no avail. On arrival of lighters cargo was at once discharged from No. 2 hold; heavy surf from S.E. continued all day, making the steamer bump very hard; the No. 2 bulkhead gave way, and the water gained rapidly into it. The men stopped pumping No. 2 and attended to No. 3, and the engines continued going in order to work the pumps, and also to keep the vessel steady. In the afternoon the master stopped the engines and ordered all the engineers to attend to the pumps and ran a stream anchor out with a wire hawser right ahead. It was hove taut, but the next morning it was carried away, and therefore had no effect in stopping the bumping of the steamer. On the 19th the Surveyors examined her; she was then lying on the bank at the North entrance of Tuticorin harbour. They reported that with proper pumping machinery the *Galatia* might be saved, and advised that in the meantime all the cargo and stores be landed. They also expressed their full concurrence in all that the master had done to save the vessel. The master at once telegraphed to Bombay, Madras, Colombo, and Negapatam for divers, salvage pumps, &c. At 11 P.M. the foremast started 6 inches, and the water having gained rapidly on No. 3 hold, the crew strengthened the stoke-hole bulkhead. On the 20th the water was up to the fires in the forward stoke-hole, and the bulkhead bulged about 9 inches; the master decided to open the sluices, and fill the afterholds and the ballast tank, the centrifugal pumps working full force on engine-room, but could not keep the water under, and the afterholds filled slowly. The steamer afterwards being steady, the crew shut the sluices and shored the after 'tween deck hatches to prevent washwater coming on the 'tween deck. On the 21st the engine-room pumps still going, the water gained on them; the foremast had gone 20 feet above deck, and the pumps stopped of their own accord owing to the water rising above them. During the day a portion of cargo was discharged from the after 'tween decks; the sea was breaking over the forecastle head; the next day all hands were employed in landing stores and gear. On the 23rd divers and salvage pumps arrived from Colombo in the British India Steam Navigation Company's steamer *Chindwara,* but too late to be of any use; however, the crew took some pumping gear and got derricks ready to lift boilers aboard for working the pumps, but the divers could not operate owing to the heavy seas. On the 24th one European diver examined the hull of the S.S. *Galatia* from stem to stern on the starboard, whilst another European diver examined the port side. They reported that on the port side the keel from the stem to abaft the lighthouse was gone, and there was a very large hole on her bilge, and another just abaft the lighthouse, measuring 8′ × 4′; between Nos. 1 and 2 hatch was a hole from 5′ to 6′ long and 2$\frac{1}{2}$′ to 3′ wide. Opposite the centre of No. 3 hatchway a very large hole in the shape of a triangle between No. 3 hatch and abaft the bridge at No. 3 hatch, it was 3′ in width, and tapered to a point abaft the bridge. In the centre of No. 2 hatch there was a perpendicular crack which extended from the bottom to above the 'tween decks; this crack was 2$\frac{1}{2}$″ to 3″ wide on both sides of the vessel. Abaft the bridge to the stem several of the butts had started. On the starboard side the keel from the stem to abaft the lighthouse was gone, and there was a hole about a foot

square, level with the sand, opposite No. 1 hatch on the bilge. There was a small hole on the bilge in the centre of the engine-room, and abaft the bridge to the stern several of the butts had started. The bottom consisted of rock, *i.e.,* hard conglomerate. This rock was covered with a layer of sand about 6 inches thick. The divers reported that the *Galatia* was past recovery; the master consequently returned the pumps to reduce expenses, thus giving up the steamer as a hopeless affair. On the 4th July a European diver, accompanied by the first and third officers of the ill-fated steamer, proceeded to examine the nature of the ground on or about the place where the vessel left anchorage in 5½ fathoms previous to her loss. The diver reported that he found patches of hard rock, boulders of coral, about 4½′ to 5′ high, and slightly covered with sand. The diver considered that this rock was dangerous to vessels anchored in the vicinity, and likely to cause such damage to shipping as had caused the loss of the S.S. *Galatia.* The master stated that on coming to the anchorage when arriving in Tuticorin harbour on the evening of the 15th June, he used all the precautions habitual to navigators, and could therefore only surmise the cause of the disaster to have occurred owing to the steamer resting upon some unknown rock before leaving port, there being no shock felt by any one on board of the vessel striking anything. He further added that he did all that a sailor could do to save his vessel under the adverse circumstances in which he was placed; every one worked in concord, and all seemed inclined to do their utmost. Original value of *Galatia,* £42,000. The steamer was sold by public auction at Bombay on the 16th July, including hull, engines, and fittings, for ₹17,300. The bulk of the cargo salved had been forwarded to various destinations, and the Agents were not aware of the sum it had realized; but a portion which was damaged was sold at Bombay and fetched ₹1,000. Crew, 42 men. It was reported that three men, being inebriated, left Tuticorin in one of the steamer's boats on the 13th July, and went out for a sail without any oars; they had not been picked up, although search was made, and it was subsequently reported that they were drowned.

[A Special Court of Inquiry was held at Tuticorin by the Acting District Magistrate of Tinnevelly on the 8th, 9th, 10th, and 11th July, under the provisions of section 7 of Act V of 1883 (The Indian Merchant Shipping Act), to investigate the circumstances attending the loss of the S.S. *Galatia,* which vessel sprung a leak whilst proceeding down Tuticorin harbour on the 18th June, and was subsequently stranded to prevent her foundering in deep water. The Court recorded that it had assembled on the 8th July, and under section 13 of the above Act it appointed as its assessor, for the purpose of this investigation, a gentleman having experience in the merchant service. The Court observed that the first witness was the master, who was examined upon an account of the accident put in by himself. This witness gave a fairly succinct account of what occurred on the night of the 17th and of the morning of the 18th June ending with the grounding of the S.S. *Galatia,* though the Court found occasion to deplore the haste with which the master had sent away to Bombay papers and charts which he must have known would be wanted in an Inquiry. The Court recorded that the master's story was briefly this:—On the 15th he anchored his vessel in 5½ fathoms and went ashore, leaving her in charge of the first officer. She was riding at two anchors—the cable on the starboard side veered to 60 fathoms, the other on the port allowed to run as it pleased from 15 to 30 fathoms. The weather was fairly fine with a strong off shore breeze at times. The position and bearings of the vessel did not appear to have been satisfactorily recorded either by the master or any one else with one exception. He stayed ashore continuously till nearly midnight on the 17th. * On that day, having previously sent off word to his first officer to prepare for sea, he came off at 11 P.M., and after signing papers ordered the steamer under weigh about 12·30 o'clock or just after

midnight. The story thereafter was that the anchor was hove up without fouling, the vessel took a proper course S.E., but without any ostensible cause, after having run half an hour, so that the lights of a vessel which had been lying in the harbour at the same time had dipped, she was found to have sprung a very serious leak; the water gained so rapidly as to overpower the pumps; the master turned the steamer back, and after a brief consultation with his officers ran her on the ground in the early morning of the 18th; since grounding she had bumped several holes in her bottom, so that the master—and for that matter every one else—had practically abandoned all hope of saving her. The master stated positively that he could assign no possible cause for the accident, and he had no suggestion to make. After hearing a good deal of evidence (with the master eleven witnesses had been examined) the attention of the Court became mainly directed to ascertaining whether in weighing her starboard anchor the steamer could possibly have gone over it, or whether, through neglect of proper precautions or otherwise, she (the *Galatia*) in her course out of the Tuticorin harbour had grazed a sunk anchor, or a sharp boulder, or anything else, and thereby torn away apart of her bottom. The inquiry had certainly localised the damage sustained by the S.S. *Galatia* to that part of her bottom which was in contact with the bulkhead which separated No. 1 hold from the chain locker and the fresh-water tanks under the forecastle. There was no evidence to prove that the steamer went over her starboard anchor, or that any part of that anchor came into contact with her bottom during the process of being hove in about midnight. Every officer and man who was examined had persisted in stating that the engines never moved; and that the vessel was never underway until the anchor was safely up to the hawsepipe. It was impossible, therefore, that the accident occurred in heaving in the starboard anchor whilst the port anchor had been secured earlier in the day; and the soundings of the wells having showed no water in the hold up to about 5 o'clock on the 17th June, it was put beyond all question that that anchor never knocked the hole in the bottom. It remained, therefore, to be determined whether the vessel was run upon a rock or other obstruction negligently or otherwise. The steamer, if the evidence could be trusted, was perfectly sound, and making no water up to 6 P.M. on the 17th; whatever damage she sustained causing her to spring a leak, she must have sustained after that hour. Now, it was most unfortunate that all the time the master was ashore, neither the first officer nor any of his subordinates appeared to have given the least attention to her heading or to her position. It was said that he did not alter her position in the least; but there was nothing which satisfactorily proved that any cross-bearings were taken; the lead was never cast whilst she remained in port until she weighed; and the first officer's log was admittedly so incorrect, and had been so imperfectly kept, that it was no guide to the Court in determining any single point in issue except the inefficiency of its writer. It might therefore have been that the steamer, which was admittedly moored in a little over 5½ fathoms, beyond which it was not safe to have gone in, might, by dragging her anchor unnoticed, have got into a shoaler position; so that when she was got underweigh she scraped against some of the boulders which were known to exist inside of the anchorage; or it might have been that when the steamer was got underweigh she did not pay off so immediately in the right direction as she was expected to have done. She was admitted to have been heading inshore, and she may have scraped the bottom and started a plate before she steadied to a S.E. course. The Court had had both these contingencies under their earnest consideration, and arrived at the conclusion on the evidence that either was possible, notwithstanding unanimous evidence to the effect that no shock or shiver was felt on board. There was, however, no evidence before the Court to show that the accident, ending in the loss of the steamer *Galatia,* was caused by the wrongful act

or default of the master, or that he was incompetent; and the Court had no charges to make against him, nor did it propose to deal with his certificate; but the Court could not help thinking that it would have been more prudent to have anchored such a large steamer as the *Galatia* in not less than 6 fathoms of water, as laid down in Marshall's excellent book of directions to the ports in the Madras Presidency (which it would be well for all shipmasters coming to the ports in that Presidency to provide themselves with). Seeing, however, that several of the books of directions gave from $5\frac{1}{2}$ to $6\frac{1}{2}$ fathoms of water as the anchorage at Tuticorin port, the Court could not lay great stress on the fact that the vessel was anchored in $5\frac{1}{2}$ fathoms as stated in the evidence. The next consideration dealt with by the Court was how, having got into that difficulty, the master and crew had behaved; and here at the outset the Court was compelled to observe, once for all, upon the attitude taken up by one and all of the witnesses examined except the master himself. Every one had spoken with the greatest reluctance. The simplest facts had to be extorted by continued interrogatory, and whenever there had been a fact to elicit, both officers and the men who were examined had briefly avoided it with the stereotyped answer—"Don't remember," or "Did not notice." No Court would ever wish to drive a willing witness into perjuring himself upon his recollection of facts, especially facts which occurred under great suspense of mind, but this Court certainly did expect more willing assistance from all concerned. As an instance of the length to which it might have been almost called obstruction had been carried in this Inquiry, the chief engineer admitted that he had with him a plan of the pumping arrangements of the steamer, but when he was called up to give evidence even this had been mislaid. The examination as to the pumping arrangements on board the ill-fated vessel was therefore rendered unnecessarily tedious. The Court observed that the general result of the inquiry then showed that within twenty minutes, or half an hour, of being underweigh water was reported in the chain locker; that the master after personally satisfying himself of the danger turned his vessel back; that whilst the hatches on the chain locker and the store-room were being battened down water was gaining in No. 1 hold; that when this was observed a consultation was held at which it was unanimously agreed between the master, the chief engineer, and the first officer that it would be advisable to ground the vessel before she went so far down by the head as to lose the use of the propeller; that about the time that the hatches of No. 1 hold were shored up water was freely circulating in the fore 'tween decks and coming aft; and that about that time the steamer was grounded. It seemed that the pumps from the engine-room were worked as soon as they were put on; but, although they worked freely, the water rose more quickly. No one seemed to have thought of the deck bilge pumps; or if they did gave up the idea of their being useful. As regards the period of time which elapsed whilst all this was taking place, there was great difference of opinion; but all were agreed that if the steamer had not been grounded she would positively have settled down by the head in deep water. The Court recorded that it had most carefully considered all the circumstances above detailed, and were unanimously of opinion that the master was justified in running his vessel aground and that the ground he selected was the best available. The Court thought that, had the bulkhead existing between holds Nos. 1 and 2 been carried up to the upper deck, the vessel, upon the facts shown in the evidence, might have been saved without running her aground. The Court were also of opinion that all the means that were within the power of the master to take for saving his steamer were taken after she grounded; but from the want of appliances immediately available and the great force with which the swell from the S.E. set in, almost directly after the vessel had grounded, the case became hopeless from almost the very first. The Court had under consideration—whether it would have improved the position of the

steamer had the master run her up aft with water to steady her; but considering her valuable cargo, and the danger which would have ensued had the bulkhead between No. 4 compartment and the engine-room given way, the Court expressed the opinion that the master was justified in not taking such a serious step at once. Altogether, the Court thought that the vessel in fact was lost from the moment when, on the morning of the 19th June, her foremast began to rise. Officers, engineers, and men seemed to have behaved fairly well under the trying circumstances in which they were placed on a dark night with the vessel sinking under their feet; but the Court would not have been justified in submitting this report for the consideration of the Government, without leaving on record a censure upon the first officer for the indifference which he had displayed, not only in his behaviour during the course of this Inquiry, but in the performance of those routine duties on board his vessel which, notwithstanding their simplicity, were those on which the safety of all concerned manifestly must depend in such cases as the present one.]

(The President, in forwarding the report of the Court of Inquiry in the above case, remarked that he was really of opinion that the Court omitted nothing in its power to get at the true facts; though the origin of the injury, which led to the *Galatia* making water so rapidly that the master was found to have been justified in running his vessel aground, was still shrouded in mystery. The witnesses whom the Court examined were by no means bright specimens of the classes to which they belonged; and the Court were much disappointed in the assistance given by the first officer, who at least might have been expected to have some theory of the manner in which the disaster originated. The President said that he was inclined to think that some fouling of the starboard anchor caused an injury which, as soon as the *Galatia* got underweigh, largely developed, so that finally the water entered the vessel in a manner which defied the pumps. The Court had been severe in its remarks upon the first officer. It should have been understood, however, that the reflections made by the Court upon his log bore upon the manner in which the entries were made prior to going into the port of Tuticorin, which did not really affect the present disaster, save in so much as they showed what kind of first officer the master had to trust in. The master was necessarily very much ashore on the business of the Company whilst his vessel remained in port, and during that time and until almost he got underweigh the steamer was in the first officer's charge. Even after every allowance had been made for the heavy daily work imposed constantly upon officers and men in the task of taking in cargo, the Court found tha the first officer might have paid more attention to his steamer.)

35. The Native ganja DOWLATPRASAD [of Mundra (Cutch), 88 tons register, official number 4275, age 25 years], from Bombay to Mundra, with a cargo of rice, iron, &c. The tindal stated that the ganja set sail and had gone as far as Surat, but as she could neither proceed on her voyage or enter the Tápti river in consequence of stormy weather, she lost her foreyard and sail and returned to Basseen. On the 20th June she sprank a leak, and at 8 P.M., the night being dark, she stranded on the sands at Kolse bandar in the Basseen creek (Bombay coast), where she broke up. Loss, value of ganja, ₹2,500; cargo worth ₹3,832 was lost, and the remainder was saved. The crew (10 men) and 2 passengers were saved by wading ashore.

36. The British Indian schooner MOWLA BUX [of Chittagong, 71 tons register, official number 4 of 1884, age 10 months], from Narainganj to Chittagong, with a cargo of jute, &c. On the 23rd June the schooner met with a severe storm whilst lying at anchor in the Mohinda khal; at 4 P.M. she parted her anchor; every step was taken to save the schooner, but unsuccessfully, as she drifted on to the Mohinda chur in the Bamnee river mouth of the Megna (Sunderbuns), whence she finally drifted off and sank. Value of schooner,

R5,000; cargo, R3,500. The crew, 9 men, were saved by getting on to the land which was close by.

JULY.

37. The British iron screw steamer MADRAS [of Glasgow, 462 tons register, official number 48928, brig-rigged, age 20 years, classed at Lloyd's 100 A.I.], from Calcutta to Penang *viâ* Burman and Malayan coast ports, with 7 passengers and a general cargo. It appeared that the steamer left Calcutta on a coasting voyage, bound for Penang, early on the morning of the 30th June, and after touching at Rangoon arrived at Maulmain on the 8th July. She discharged cargo, her mails, and passengers there, and took in other cargo, mails, and 5 native deck and 2 second class passengers for Renoung. She had general merchandise, consisting of rice, scantlings, manure, and shingles. The first officer only joined the vessel at Calcutta on the 23rd June, and the master a few days before putting out to sea. The *Madras* sailed from Maulmain at about 1-30 P.M. on the 9th July, the weather being thick, and rainy; she anchored at 4 o'clock before getting outside the Salween or Maulmain river in consequence; thence to where the vessel was lost she experienced cloudy weather, and for 11 days since leaving Calcutta the sun was not visible to enable any observations to be taken. At 5 P.M. that afternoon the anchor was weighed and the steamer proceeded down the river, going through the Mergui Archipelago, until the 11th, when she anchored at 2-15 A.M. at the mouth of Fell's Passage, because it was too narrow to go through at night. The master stated that he was called at 5 o'clock on the morning of the 11th, but it being then a dense fog the mouth of the passage could not be seen, hence she still remained at anchor. About two hours later it being sufficiently clear, the vessel started with an easy speed, which was increased gradually to full speed, when she was clear of everything. At 11 A.M. she cleared the passage, and the master remained on the bridge taking the vessel down through the recognized track—a line of passage shown in the Admiralty chart—as the master stated that he was familiar with the channels, having been running through the Mergui Archipelago five or six voyages. At 6 o'clock that evening the master was relieved by the second officer, but before going on the bridge the master told him that when the small island off Bushby was abeam, to set the course S.E.byS.½S., by compass. Twenty minutes afterwards the small island was abeam, so the second officer changed the course, and which course was subsequently steered until 9-15 P.M., when High island bore N.E.byE.½E., by compass, 2½ miles distant. At 8 o'clock the first officer relieved the second officer on watch, and received from him the course S.E.byS.½S.; the master was then on the bridge. The steamer was at that time between the small island off Bushby and the High island. The first officer stated that he noticed that the small island then was on her quarter. The master's instructions were to keep that course until further orders and to heave the lead every 20 minutes. It was a full moon, the weather was cloudy, and there was occasional drizzle and rain; there was a light wind from the South-West and the sea was smooth. The vessel was going about 6½ knots an hour and no allowance was made for the tide. There was a look-out on the forecastle, one man at the wheel, and the first officer with the master on the bridge. The first officer thought that during the bad weather which prevailed he could see a very high island at a distance of 6 miles and a small one at about 2 miles. The master at 9-15 P.M., after fixing the position of the steamer with reference to High island, which bore N.E.byE.½E., altered the course from S.E.byS.½S., by compass, to S.S.E., and directed the lead to be kept going every 20 minutes. At 11 that night as the soundings gradually shoaled to 9½ fathoms, the master again changed the course to S.byE., by com-

pass, and ordered soundings to be taken every 10 minutes. About 20 minutes past 11 P.M. the master stated that the steamer, when in 9½ fathoms, passed the Canister island distant 3 miles bearing E.½N., by compass. At 11-40 that night she was still in 9½ fathoms, and at 11-50 in 9 fathoms, and five minutes after the *Madras* ran on a reef, end on, 3 miles to the Southward of the Canister island in the Forest Strait in latitude 10° 46′ 15″ N., longitude 98° 28′ 0″ E., Mergui Archipelago (Burma coast). The master then ordered the lead to be hove from the bridge, and the soundings taken gave 9 feet of water. The engines were immediately reversed and put full speed astern, and men were sent down in the mainhold to shift the cargo aft, but, the tide falling, all attempts proved futile. The next morning the *Madras* was examined, and was found to have a hole in her bottom, her hold was full of water and the blades of the propeller were broken; and at low-tide she was nearly high and dry. Notwithstanding the indefatigable exertions of the master and the officers to save the *Madras* from her perilous position, she had eventually to be abandoned as a total wreck. The second officer then went to Mergui in a life-boat and telegraphed to the Agents at Calcutta the position of the vessel and for assistance. In the meantime the master, crew, and passengers took refuge on a small island near the reef, where they remained till the 9th August, when they were taken off by the steamer *Mahratta* belonging to the same Company. The man at the wheel stated that when he went on deck at 10 o'clock on the night in question the course given to him was S.S.E., and that just then he heard the master, who was on the bridge, ordering the first officer to heave the lead. He said that during his watch he received from the master three different orders, one to steer S.S.E., the other to go *ek pointa* (S.byE.), and the third *adha pointa* (S.byE.½E.), but when 20 minutes remained before midnight the master directed him to go back to the old course, S.S.E. The fourth engineer went on watch at 8 o'clock that evening. He said that the steamer was then going about 8 knots, and that after an hour he was ordered by the chief engineer to slow down to 6½ or 7 knots, when no further instructions were given him until the vessel went ashore. Just then he felt the engines going a little slowly, and got the orders to stop and go full speed astern. The master said that on the following morning on bearings being taken the steamer was found to have been half a mile clear of the reef on which she was stranded. The East end of High island bore N.N.W. and Canister island N.¼E., by compass. The master deposed that there was one degree easterly deviation on the first course steered and 1½ degrees on the two last courses. It appeared that the master had such confidence in his compasses that he did not consider it necessary, whilst at Calcutta, Rangoon, or Maulmain, before proceeding on his voyage from either of those ports, to take any means to test the correctness of his compass, but was satisfied only in accepting as correct a deviation card without knowledge of its date and on the mere verbal statement of the former master of the steamer. There were no charts of Rangoon and Maulmain ports, and the master consequently relied perfectly on the compasses without having ascertained for himself when, and how, they were last corrected. The master accounts for the cause of the vessel stranding to tides from the westward stronger than he was led to expect from the chart. Original value of steamer, R1,00,000; cargo, R20,000. The *Madras* was subsequently sold by public auction at Rangoon and realized R4,510; there had been no sale of the cargo, which was reported to have been all lost. The crew, 48 men, and 7 passengers. No lives lost.

[A Special Court of Inquiry was held at the Port Commissioners' Buildings, Calcutta, on the 5th, 6th, and 8th September, by the Magistrate of Howrah, under the provisions of section 7 of Act V of 1883 (The Indian Merchant Shipping Act) for the purpose of making an investigation into the cause of the

stranding and subsequent loss of the S.S. *Madras* in the Mergui Archipelago. The Court recorded that after having taken the examination of the master of the S.S. *Madras,* they arrived at the conclusion that there were grounds for charging him with misconduct and wrongful act, occasioning the stranding and total loss of the steamer; and under the provisions of section 9 of the above Act, a copy of the statements of the case upon which this investigation had been directed had been furnished to the master. The Court observed that the facts of the case were briefly these: The S.S. *Madras* left Maulmain on the 9th July for the port of Renoung, in the Malay Peninsula, with a general cargo and 7 passengers—5 deck and 2 second class. The vessel followed the recognized route, and appeared to have maintained the correct course until 9-15 P.M. of the 11th July. At that time the master and the first officer were on the bridge, it being the latter's watch. The master was directing the course which the steamer should take, and at 9-15 P.M., after fixing the position of the vessel with reference to High island, which bore N.E.byE.$\frac{1}{2}$E. $2\frac{1}{2}$ miles away, he altered the course from S.E.byS.$\frac{1}{2}$S. to S.S.E., by compass, and gave directions for soundings to be taken every 20 minutes. As the vessel gradually shoaled to $9\frac{1}{2}$ fathoms at 11 P.M., the master again changed the course to S. by E., by compass, and ordered soundings to be taken every 10 minutes. At 11-20 o'clock that night the Canister island was sighted as bearing E.$\frac{1}{4}$N., and as the *Madras* was in $9\frac{1}{2}$ fathoms of water the master judged his position from the chart to have been 3 miles from that island. At 11-40 P.M. the lead still gave $9\frac{1}{2}$ fathoms, and at 11-50 P.M. 9 fathoms; five minutes later, at 11-55 P.M., the vessel struck on a reef. The master at once gave the order for the engines to go full speed astern; this was done, but, as the tide was falling, it was of no use, and the steamer remained on the reef. At the moment of striking the first officer sounded and found only 9 feet of water. The vessel was steaming $6\frac{1}{2}$ knots at the time. The next morning the steamer was examined, and was found to have a hole in her bottom and her hold was full of water, but at low-tide she was nearly high and dry. No lives were lost. The officers, the crew, and the passengers remained on a small island close to the reef, and the second officer was sent off in a life-boat to Mergui port, where he telegraphed to the British India Steam Navigation Company at Calcutta, who sent the S.S. *Mahratta* to the spot. The *Mahratta,* of the same Company's fleet, arrived there on the 7th August, and on the 9th proceeded for Calcutta with the rescued crew and the passengers on board. When the *Mahratta* left the *Madras* was still on the reef on which she had struck. The position of the reef was indicated on the chart of the Mergui Archipelago which was on board, and there was no question as to the precise spot. The master accounts for the accident by the set from the westward of stronger tides than he was led to expect by the chart, and he stated that on examining his bearings on the morning after the wreck he found that the vessel ought to have been half a mile clear of the reef. The first officer had expressed himself to the effect that the *Madras* ought to have been $1\frac{1}{2}$ or 2 miles to the westward of where she found herself; and on this point there could have been no doubt, for in marking off on the chart the distances and courses which, according to the log-book, the vessel took after 9-15 P.M. on the night in question, the Court found that the steamer at the time of striking on the reef was $2\frac{1}{2}$ miles approximately to the eastward of the course which she purported to have been. The Court had endeavoured to ascertain the state of the steamer's compass, but the matter was in some uncertainty. The master appeared to have accepted the deviation card which he found on board the *Madras* as correct without having taken any means of testing it. The deviation card was attached to the vessel's log-book before the Court, and was unsigned and undated, and offered no indication of when it was last prepared or tested. The master, who had recently joined the steamer when

she was last in Calcutta, stated that he learnt from the previous master that the deviation card could be depended on, and that from the time of taking over the command of the vessel until the time of the wreck he had no opportunity of testing the compasses, the weather being cloudy and the sun being only once visible the whole day. Previous to the accident the vessel, it seemed, had put into the ports of Rangoon and Maulmain, remaining part of two days at the former and one day at the latter port, and it was a matter of surprise to the Court that neither in the port of Calcutta nor in the Hooghly river, nor in the ports of Rangoon and Maulmain, did the master take any measures for testing the compasses. The Court found that from the time of leaving High island the master of the *Madras* neglected to take even ordinary precautions to navigate the vessel with safety, insomuch that, after having passed High island, he did not take any other bearing to verify the course his vessel was making, although the evidence proved that he had High island in sight for a very considerable distance. Working up the courses and distances from the position at which he assumed himself to have been off High island until the time of his striking, the Court found that the courses steered would have placed him a considerable distance to the westward of the position where he discovered the steamer to have been on sighting Canister island, and on finding her in such close proximity to that island he ought immediately to have altered her course to the westward of South, as it being nearly high-water at the time the soundings obtained 9 fathoms reduced to low-water would have given him about 7 fathoms placing him therefore close on Canister island, and on continuing the course would have led the steamer dangerously near the reef on which it eventually grounded. Under these circumstances the Court were of opinion that, had it not been possible to verify the vessel's position with any degree of accuracy by cross-bearings or otherwise, the steamer ought to have been anchored, and before attempting to proceed further the master should have waited for daylight. The question of the correctness of the *Madras's* compasses was open to grave doubt, and from the evidence adduced the Court found that the master undertook to navigate his vessel in narrow and intricate channels without having ascertained for himself when, or how, the compasses were last corrected, and that he further failed, when opportunity offered, to test his compasses by simultaneous bearings or otherwise before attempting to navigate in narrow water, where a few degrees either way would have put the steamer on shore. The Court recorded that it laid particular stress upon this point, inasmuch as the master and the officers, who were comparatively new to the vessel, in accepting as correct a deviation card without knowledge of its date and on the mere verbal statement of the former master of the vessel, trusted valuable lives and property to a doubtful guide. The Court considered, therefore, that the loss of the *Madras* was entirely due to the imprudence and negligence of the master of that vessel in not having taken the necessary precautions and in not having availed himself of the opportunities which presented themselves for the safe navigation of his vessel through narrow and intricate channels during the night. From the master's statement it appeared that he had commanded a vessel for about 8 months, having previously been first officer for 4 years and second officer for 2 years and 10 months. He was, therefore, comparatively young and inexperienced in the duties of a master, and this fact, the Court observed, was taken into consideration in awarding punishment for his default. The Court were of opinion that it would be sufficient if the master's certificate, which he held was suspended for 6 months, counting from 11th July, the date on which the *Madras* was stranded, and that in the meantime a certificate as mate might be granted to him. The Court, therefore, suspended the master's certificate for 6 months, and directed that a recommendation be forwarded to the Local Government to grant him a mate's certificate during the term of suspension.]

The President, in forwarding the proceedings of the Court of Inquiry, together with copy of the judgment, remarked that the Court had found that the loss of the *Madras* was due to the imprudence and negligence of the master, and had suspended his certificate for 6 months, counting from 11th July, the date on which the vessel was stranded. The order of the Court was accompanied by a recommendation to Government to grant the master a mate's certificate during the period of his suspension. The President, therefore, invited the attention of Government to this recommendation in view of orders being issued under the provisions of section 19 of the above Act. The President represented that the master stated that he had sent his certificate to Rangoon from the scene of the wreck by the master of the S.S. *Avagyee,* and that he had telegraphed to Rangoon for it to be sent to Calcutta. He undertook on its arrival to deliver it to the Port Officer of Calcutta, by whom it was subsequently forwarded to the Government.

The Lieutenant-Governor of Bengal remarked that the Court found that the loss of the steamer *Madras* was due to the negligence of her master in having omitted to test the compasses of that vessel in order to ascertain their deviation, in not having verified his course by taking bearings, and in having attempted to navigate an intricate and difficult channel by night without knowing the exact position of his vessel and whilst in danger of losing his course by the set of the current. On these grounds they ordered the suspension of the master's certificate for 6 months from the 11th July, and recommended that a certificate as mate be granted to him for that period under section 19 of the Act. On examining the proceedings of the Court, there appeared to the Lieutenant-Governor to have been reasons for deeming them irregular in respect of the following points :—*First,* because the Court had of its own authority suspended a certificate granted by the Government of Madras otherwise than under the provisions of the Merchant Shipping (Colonial) Act, 1869, or of any Order in Council under that Act. By section 20 of the Act the power to suspend such certificates was reserved to the Local Government, under whose orders the inquiry into a casualty was conducted ; *Secondly,* because their recommendation for the grant to the master of a certificate as mate referred incorrectly to section 19 of the Act instead of section 24, which dealt with cases of this kind ; *Thirdly,* because, when the investigation appeared likely to involve a question as to the cancelling or suspension of the master's certificate, the Court omitted to appoint assessors under section 13 of the Act. The Legal Remembrancer was, therefore, asked to obtain the opinion of the Advocate General on the irregularities noted above, and to ascertain whether the first two points in which the proceedings of the Court were defective might not be amended by treating the judgment of the Court as a report under section 17 of the Act, and passing orders upon it accordingly under sections 20 and 24, and whether the omission to appoint assessors would necessitate a re-trial of the case *ab initio.* The Advocate General's opinion, which had since been submitted by the Legal Remembrancer, was to the effect that, although the judgment of the Court might have been taken as a report upon the cause of the stranding of the S.S. *Madras,* no action could have been taken on it in respect of the master's certificate, and that the Court's proceedings, so far as they related to the charge of negligence against the master, were altogether invalid by reason of the omission to appoint assessors under section 13, and to have made it clear on the face of the proceedings that before the commencement of the inquiry into the charge of incompetency against the master he was furnished with a copy of the report upon which the investigation had been directed. It was added that the Local Government had the power to order a fresh inquiry under section 10 of the Act. On a full consideration of the circumstances of the case, it seemed to the Lieutenant-Governor of Bengal that to direct a new trial under section 10 would have been almost impracti-

cable on account of the difficulty of bringing together again the witnesses who gave evidence before the Special Court, whilst it would have imposed unnecessary hardship and trouble on the master of the *Madras,* whose certificate had already been virtually under suspension for more than 4 months. The Lieutenant-Governor directed that the certificate should therefore be returned to the master and the results of the inquiry be reported to the Board of Trade. The orders of the Court on all points were set aside as invalid. It was thus apparent that the Special Court had dealt with the important matters referred to it in a manner so careless and unsatisfactory as to call for an expression of the Lieutenant-Governor's serious displeasure. If the failure of justice had been less serious, and had involved less important consequences than might have been the case, this result was in no way due to the action either of the President of the Court, or of the Deputy Legal Remembrancer. The object of nominating a magistrate as President of the Court, and of deputing one of the law officers to prosecute in cases of that kind, was to ensure the full observance of all the requirements of the law. The Lieutenant-Governor regretted to observe that that was not the first instance in which, within very recent times, inquiries under the Merchant Shipping Act had resulted in failure owing to the inattention of the Government prosecutor, and therefore it became necessary to direct that effective measures be now taken to guard against similar mistakes in future. As the Act was a new one, and as it seemed to have been imperfectly understood by the officers who had to work it, the Legal Remembrancer was desired to draw up a concise statement of the procedure to be followed in each of the different classes triable under it and submit it to the Government for approval. It could then be brought into use as a guide to his own Department and to the Courts which might be appointed in future to inquire into shipping casualties on the coast of Bengal.

(It has been subsequently stated that the steamer Madras was successfully floated, and that she had arrived at Rangoon on the 12th February 1885.)

AUGUST.

38. The British Indian iron screw steamer RELIANCE [of Calcutta, 217 tons register, official number 20765, schooner-rigged, age 27 years], from Calcutta to Chittagong, with a cargo of coals. It appeared that on the morning of the 12th August the steamer was lying moored at No. 18 swinging buoy a little above Koila ghât, in the Hooghly river, the buoy being to the West of the channel, about 400 or 500 feet from the Calcutta shore. The vessel was laden with 240 tons of coals, and was bound for Chittagong, and the coast ports between that place and Narainganj, in search of Calcutta passengers. The first officer was on the topgallant forecastle, standing by to cast her off, the master was in charge of the bridge, the second engineer in the engine-room on duty, and a khalassie in the chains on the forepart of the vessel. The master asked the first officer whether the steamer was ready forward, he replied in the affirmative, whereupon the master then told him to let go, which was done, at the same time the telegraph bell rang to go ahead slow and then half speed. There was a strong ebb-tide running and the engines worked at slow. The master said that about 9 A.M. the *Reliance* cast off from the moorings to proceed down the river, and commenced to turn to the Calcutta side, but when she got about a ship's length from the buoys on that side of the river she came near a buoy, and subsequently the steamer, whilst abreast of Chandpal ghât, backed astern, the tide meanwhile was drifting her downwards towards No. 15 buoy. When she got between that buoy and buoy No 14, the first officer said he heard the bell ordering her to stop, the vessel having a little sternway on her. Then the bell went to go ahead again, when he heard a

second bell go, and then a third bell, but could not himself say what orders were conveyed by those bells, and then the *Reliance* struck No. 14 buoy. The second engineer stated that when she first left the moorings the bell rang to go ahead slow and then half speed when the engines worked at slow; then the master stopped the engines, when the next order was half speed, he gave the engines more throttle and she went half speed; the master put her astern; he then stopped her again, and she went on ahead, but immediately the full speed order was telegraphed he put the engines full speed, but within a minute or so he heard the steamer strike something. He said that all the orders he received was to go ahead at different speeds, and that no order was given to back. It was stated in evidence that river and tug steamers were permitted to turn opposite their own moorings, and in turning they had to go forward and back again, and might have had to do this several times. The buoys at which tugs were moored were as near the Howrah sand as possible. Leaving buoy No. 18 a tug should go ahead on a port helm and then stop and turn astern full speed before getting to the buoys on the Calcutta side and shift the helm. The twist of the screw would bring her stern up northward to help her round, but when she got near the buoys in the middle of the river she would again stop and go ahead full speed and shift the helm again, and probably would then get her head down the river. If not, she would have to repeat the operation; and a little hesitation might allow a vessel to go back or forward too far and strike a buoy. The master stated that on proceeding ahead again the steamer's starboard quarter came into collision with the buoy, the engines were stopped before the accident occurred, the buoy grazed alongside the *Reliance's* quarter and passed under the stern, when the steamer swung right down the river and proceeded slowly straight on. The buoy sank by the collision. As soon as she struck the first officer heard the water rushing in, and on opening the hatch the serang went in and found the water was coming in at two places on the starboard and port quarters. He at once rushed down from the forecastle head and ordered the chief engineer to work the pumps; the chief engineer thereupon ran down and started the donkey-engine on the bilge pumps. After a short time, the chief engineer observing that they could not keep her dry, he put the bilge injection on, but the water still kept pouring in very rapidly, and it was considered that she would sink if she were not beached. When off the Kidderpore dockyard, the master, on finding that she was leaking very badly from a hole in her stern, having 3 to 4 feet of water in her hold, proceeded down full speed till abreast of Shalimar point, when he beached the *Reliance* at 10 A.M. to the N. E. of the Bishop's college sand, below the point. Shortly after this the steamer was left high and dry and filled and sank with the incoming flood at a little past 12-30 P.M. On the 14th her masts were almost under water, and it was reported that she would in all probability disappear by the next day. It was stated that the *Reliance* was insured for ₹15,000 only, in the South British Insurance Company, Calcutta, and the owner was endeavouring to effect a further insurance on her to the amount of ₹10,000. Cost of repairing the damage done to the buoy, ₹105. Original value of steamer, about ₹60,000; cargo, ₹2,031. The hull, with stores, fittings, &c., was sold by public auction at Calcutta for the sum of ₹475, and her cargo for ₹50. The crew, 46 men, were saved by boats.

[A Marine Court of Inquiry was held at the Port Commissioners' Buildings, Calcutta, by the Officiating Chief Presidency Magistrate on the 28th August and 2nd and 4th September, under the provisions of Act XII of 1859, to investigate the circumstances which led to the collision of the steamer *Reliance* with No. 14 swinging mooring buoy, thereby resulting in her being totally lost. The Court recorded that in this case the accused, a licensed steam-tug pilot, was charged with having, whilst in pilotage charge of the steamer *Reliance*,

through unskilfulness, negligence, or other default, allowed that vessel to come into collision with a mooring buoy, thus causing damage to the steamer's plating, which resulted in her being totally lost. On the morning of the day in question the *Reliance* was moored to one of a line of buoys on the Howrah side of the river usually used by steam-tugs; the mooring buoy with which the vessel was alleged to have fouled was in the same line. It seemed that the master only joined the steamer on the 8th August, and his first officer on the following day. On the morning of the 12th August, at about 9 o'clock, the *Reliance* left the moorings to proceed down the river. The Court observed that only three witnesses were called to speak as to what took place, the first officer, the second engineer, and a khalassie. The Port Officer was called to speak to the usual and apparently proper method of turning a steam-tug in the port, and the harbour master to speak as to the tide and damage to the buoy which the steamer was alleged to have come into collision with. The harbour master stated that there was an unusually strong ebb-tide on that morning, but that the strength of the tide was no reason why the vessel should not have left her moorings. The Court observed that the evidence of the witnesses from the *Reliance* was far from satisfactory, the first officer being contradicted on most material points by the khalassie. The second engineer, who only spoke as to what orders were received in the engine-room, stated in examination-in-chief (and in cross-examination he adhered to the statement) that the only order signalled to the engine-room was to go ahead, a statement which was palpably absurd. From the first officer's evidence it appeared that on casting off from the buoy the steamer went ahead, coming round towards the Calcutta side until it neared the buoys on that side of the river. She then backed, but meanwhile she was drifting on the tide downwards towards No. 15 buoy in the original line of buoys in which she had been moored. The vessel then got between that buoy and buoy No. 14, having still a little sternway on her. She was stopped and the order was given ahead; then a second bell went, and then a third bell (the first officer could not himself say what orders were conveyed by those bells), and then the steamer struck No. 14 buoy. She then swung right down the river and went straight on, the water rushing into her hold. The Court recorded that, in answer to a question put by one of the jurors, the first officer stated that when the *Reliance* got between the buoys Nos. 14 and 15 she had backed until she had the buoys amidships. On reaching Kidderpore dockyard it was found that the steamer was rapidly filling. The master then ran her on to the sands, opposite the Bishop's college, and there she subsequently became a total wreck. It was not suggested (and no evidence was tendered on the point) that it would have been safer to have beached the *Reliance* on the Howrah sand, which was to the westward of the buoy with which she fouled and much nearer. It will be observed from the evidence of the Port Officer that the master apparently endeavoured to turn his vessel in the ordinary and proper manner; but according to the Port Officer a little hesitation might allow a vessel to go back or forward too far. In the present case the *Reliance* seemed to have gone astern a little too far, and this undoubtedly caused the collision with the buoy. How it was that she went too far astern did not appear. It might in some way have been due to the unusually strong tide, or to some hesitation, or possibly to the fact that, being new to the vessel, the master was not fully aware how readily she answered on being handled. The master who appeared in person made no statement, and did not address the jury; he contented himself with the plea of "not guilty." The evidence, as the Court had previously said, was far from being satisfactory, and it was almost impossible to gather from it what did actually take place. The prosecution itself did not specially urge that there was any particular in which the master had shown either unskilfulness or negligence in handling his vessel.

The jury after deliberating for about three-quarters of an hour, returned a verdict that "the accused committed an error of judgment, which caused the *Reliance* to come into collision with buoy No. 14, resulting in the total loss of the steamer, but that such error of judgment did not amout to unskilfulness or negligence." Having regard to the nature of the charge the verdict amounted to an acquittal, and as such, the Judge accepted it and discharged the accused. The master's certificates were accordingly returned to him.]

I, the Port Officer, concurred in the finding of the Court acquitting the master of the *Reliance,* and suggested that the Port Commissioners might be moved to issue a rule that all passenger steamers not being river steamers should be required to back down to Garden reach, as all sea-going vessels have to do, instead of turning in the narrow part of the river, which privilege might be restricted to tugs.

The Lieutenant-Governor of Bengal observed that the pilot having been acquitted by the jury, and the Judge having accepted their verdict, he would make no remarks on the case.

39. The British Indian padow GODAVRIPRASAD [of Bulsár, 16 tons register, official number 1464, age 11 years], from Bhagvá to Bulsár, with a cargo of firewood. During a heavy storm on the 16th August the padow sprang a leak near the entrance of the Navsári creek (Gulf of Cambay); she shipped such a large quantity of water that she foundered at 4 A.M. Value of padow, ₹250; cargo, ₹196. The crew, 9 men, were saved by swimming ashore.

40. The British Indian pattimar MAHADEVAPRASAD [of Málvan, registered tonnage, age, and official number not reported], from Málvan to Báliapatnam in ballast. On the 26th August the pattimar, when off Mount Dilly, met with a severe storm, with heavy rain, and a strong northerly sea, during her voyage and sprang a leak; the tindal made all haste to enter the Báliapatnam river (Malabár coast). The crew exerted themselves to their utmost in bailing out the water, which gained on the pattimar to a very large extent, but to no avail. At midday on the following day, whilst proceeding up the river—the pattimar being very old—her planks were considerably loosened, and she immediately went to pieces. Loss, value of pattimar, ₹500. No cargo on board. The crew, 8 men; 7 lives were lost, and the remaining one person was saved by swimming ashore.

41. The Native padow HURIPRASAD [of Cutch, 86 tons register, official number 43 of 1881, age unknown], from Calicut to Bombay, with a cargo of cocoanuts. The padow had met with a succession of heavy squalls, attended with violent rise of the sea for two days; and on the 27th August was driven by the strong northerly winds ashore off Mattool, about 2½ miles South of Mount Dilly (Malabár coast), where she shortly afterwards broke up. Value of padow, unknown; cargo, worth ₹2,750, was lost, and the remainder was damaged. The crew, 8 men, were saved by swimming ashore.

42. The Native battalla JEIRAM PUSSA [of Bet (Gujarát), 85 tons register, official number not reported], from Bet to Calicut in ballast. On the 27th August the battalla was anchored near the new mouth of the Mangalore harbour (Malabár coast); the tindal stated that, as the weather was very squally, he found that she was drifting on shore owing to her making leeway; consequently he ran for shelter into the harbour, but the strong currents prevented his getting to the bar, when at 6 P.M. she was driven on shore, where she subsequently broke up. Loss, value of battalla, ₹4,600. No cargo on board. The crew, 9 men, were saved by wading to shore assisted by a line.

43. The British Indian ganja SUGAL PUSSA [of Bombay, 7 tons register, official number 2], from Bombay to Cochin, with a cargo of empty wooden casks. On the 28th August the ganja, whilst off Tonse near Udipi (Malabár coast) met with a storm, when she would not answer her helm, and at 2 P.M. she was driven ashore at Tonse and wrecked. Value of ganja, ₹3,000; cargo

value not reported. The crew, 11 men, were saved by jumping into the water and wading ashore.

44. The Native kotia ARABELLA [of Porbandar, Káthiáwár, 112 tons register, official number and age not reported], from Porbandar to Cochin, with a cargo of white stone slabs. On the night of the 28th August during a storm the kotia, when off the Portuguese territory, was dashed to pieces amongst the rocks abreast the Arambhol shore near Goa. Loss, value of kotia and cargo not reported. Of the crew of 10 men, 6 were drowned, and the remaining 4 persons were picked up by the assistance given from the shore.

45. The Native battalla NARAN PUSSA [of Bhúj, Cutch, 48 tons register, official number not reported], from Cutch Mándvi to Calicut in ballast. The battalla was moored with both anchors down in the Calicut roadstead (Malabár coast), when on the 29th August, owing to the unusual character of the season, the stormy weather usually following, a period of calm set in earlier than was expected; at 12 P.M. she parted from her anchors during the prevalence of a rough sea with strong winds, and after drifting ashore heeled over on the beach 200 yards N.N.W. of the lighthouse. The tindal stated that all available ground tackle was used, but that nothing could have been done to avoid the disaster. The battalla subsequently broke up. Loss, value of *Naran Pussa,* ₹ 2,000. No cargo on board. The crew, 7 men, were all saved in boats by the timely assistance rendered by the Marine Department. (It was reported that the wreck could have been avoided had the battalla been provided with better ground tackle.)

46. The British Indian pattimar YESHWANTI [of Málvan, 21 tons register, official number not reported], from Tanúr to Bombay, with a cargo of cocoanuts. The pattimar was moored, with both anchors down, in the Calicut roadstead (Malabár coast), when, on the 29th August, owing to the unusual character of the season, bad weather set in earlier than was expected; at 12 P.M. whilst the tindal was unloading the cargo for the purpose of steadying her, the pattimas parted from her anchors during the prevalence of a rough sea with strong winds, and drifting ashore, heeled over on the beach 200 yards South of the old custom house. The tindal stated that all available ground tackle was used, but that nothing could have been done to avoid the disaster. The pattimar subsequently broke up. Loss, value of *Yeshwanti,* ₹ 2,000; cargo, worth ₹ 800, was lost, the remainder was recovered and landed ashore. The crew, 9 men, were all saved in boats by the timely assistance rendered by the Marine Department. (It was reported that the wreck could have been avoided had the pattimar been provided with better ground tackle.)

SEPTEMBER.

47. The British Indian mahangiri LAXMI [of Thána, 18 tons register, official number 6074, age about 12 years], from Kalyán to Bombay, with a cargo of bricks. At 5 P.M. on the 7th September the mahangiri when about half a mile off the landing-place at Trombay, Bombay harbour, met with a squall, the foreyard was carried away, and, shipping much water, the mahangiri sank. Value of mahangiri, ₹300; cargo, ₹100. The crew, 8 men, were saved by being picked up in tonies sent from the shore.

48. The British Indian battalla RATNAGIRI [of Broach, 56 tons register, official number 1682, age 39 years], from Broach to Bilimora in ballast. On the 8th September the battalla met with boisterous weather after leaving port, and when 4 miles South of Piram island lighthouse (Gulf of Cambay) she anchored; at 3 A.M. her sails were carried away, and having parted from her cables she became unmanageable, drifted on to a sand bank and broke up. Value of

battalla, ₹ 1,200. No cargo on board. The crew, 14 men; 12 were saved in the battalla's toney and 2 persons were lost.

49. The British Indian craft DARIA DOWLUT [of Broach, 59 tons register, official number 1641], from Broach to Calicut in ballast. On the 8th September the craft was anchored 2 miles to the South of the Tápti lighthouse (Gulf of Cambay), but the river having greatly swollen in consequence of the monsoon floods, the cables parted at 12 P.M., and she was consequently driven ashore by the force of the stream, and, after striking heavily several times, she broke up. Value of craft, ₹ 3,000. No cargo on board. The crew, 12 men. No loss of life.

50. The British Indian padow LAKHMIPASHA [of Porbandar, Káthiáwár, 35 tons register, official number 3884], from Porbandar to Bombay, with a cargo of 1,705 Porbandar stones. The tindal stated that the padow left Porbandar at 6 P.M. on the 8th September; at 10 P.M. she experienced stormy weather with much rain, and, the night being dark, her course was uncertain; the sails were carried away, and she sprang a leak; the padow being unmanageable, the crew threw overboard a portion of the cargo. Subsequently she was allowed to drift along the coast, when she eventually stranded at Adri near Verával (Káthiáwár coast) on the morning of the 9th September. Value of damage to padow, ₹ 1,000; cargo, worth ₹ 331, was lost, and the remainder, valued at ₹ 61, was saved. No loss of life.

51. The British Indian dingy MAHADEO PRASAD [of Porbandar, 28 tons register, official number 4238], from Porbandar to Surat, with a cargo of slabs of stones. At 5 P.M. on the 20th September the dingy, owing to a storm, was driven on to a rock at the mouth of the Wadhwan creek near Tárápur (Bombay coast), and broke up. Value of dingy not reported; cargo all lost, value ₹ 150. The crew, 5 men, were saved.

52. The British iron screw steamer PUNJAUB [of Glasgow, 685 tons register, official number 48936], from Bombay to Kurrachee, *viâ* coast ports, with a general cargo. It appeared that the steamer left Bombay on a coasting voyage bound for Kurrachee, with a cargo of general merchandise, on the 24th September. She touched at three places on the Káthiáwár coast, and arrived at Cutch Mándvi at 11 o'clock on the morning of the 26th, and, after discharging cargo, her mails, and passengers there, she took in other cargo, mails, and 58 passengers for Kurrachee. There were three compasses on board, a steering compass on the bridge, and the standard compass and another steering compass on the poop. The anchor was weighed at 3-30 P.M. on the same day, and the steamer proceeded full speed, the course being W2°S., magnetic, until Asar pagoda bore N.N.E., magnetic, distant about 5 miles. The master stated that he ascertained his distance from Asar pagoda by the bearing of the pagoda and soundings. He had a seacunnie in the chains giving him no bottom at 9 fathoms. He then, at 4-55 P.M., sent the first officer on the poop to set the course N.W.byW.½W. by the standard compass, and to stream the patent log, which was a Walker's patent taffrail log, and upon that course he allowed 3° westerly deviation. There was no difference between the bridge compass and the standard compass on that course. At five minutes to 5 o'clock, after the master had set the course, he told the first officer that he was going to lie down, as he had been up all night, and to keep a good look-out, the course being N.W.byW.½W. by standard, and not to come under 7 fathoms, and to keep the bridge lead going every half hour. At 6 o'clock he was called for dinner, and the first officer then reported to him that the steamer was in 9 fathoms. The first officer said that he took charge of the vessel at 4 o'clock that afternoon and went on the bridge. She was steering West by the standard compass, and had continued on that course till five minutes to 5 o'clock. He took the bearing of Asar pagoda which bore N.N.E.

distant from 4 to 5 miles, and then set the course N.W.byW.½W. by the standard compass. At the time he altered the course he understood the seacunnie to say that he had 7½ fathoms. He kept watch till 6 P.M., taking a cast of the lead every half hour and getting 9 fathoms. At that time he was relieved by the third officer; giving him the course N.W.byW.½W., he directed him to take soundings every half hour, and to let the master know when the steamer got into 7 fathoms. The third officer stated that he took a cast of the lead at five minutes past 6 o'clock, and found 8¾ fathoms; he took another cast of the lead at 6-30 P.M. and got 8 fathoms. At 20 minutes to 7 P.M. he was relieved by the first officer, to whom he gave the course and reported the last sounding 8 fathoms. The first officer alleged that he took soundings at 7 o'clock and found 9 fathoms, at 7-30 P.M. 9 fathoms, and a few minutes before 8 o'clock he took a cast of the lead, but finding that the water was shoaling and not being sure of his soundings, he took a second cast and found a quarter less 8 fathoms. He then went aft and reported 8 bells, and at the same time told the master that he had a quarter less 8 fathoms, and that the steamer was shoaling. The master considered for a moment, and then told him to let her go on the same course. The master positively stated that at 6 o'clock the first officer said that the vessel was in 9 fathoms of water; that he remained on deck on the poop; that it was a moonlight night, and there was a moderate breeze and a moderate sea from the S.W.; that the vessel was going 10¼ knots by the engine, allowing an average speed of 9 knots and a current of half a knot an hour in his favour; that the jib, the fore, and the mainstaysails were set; and that he watched the vessel steering from 7 until half-past 7 o'clock, and that she steered very well during that time. At 7-30 P.M. the master sent a seacunnie to ascertain from the first officer what water the steamer was in, and the seacunnie brought word back 9 fathoms. That the patent log then showed 22 miles; that he laid off his position on the chart allowing 2 miles for current in his favour; that according to his calculations it put the vessel 4 miles outside the course he was steering. The master in his evidence said that at 6 o'clock the first officer reported 8 bells and gave him soundings at 8¾ fathoms. He also stated that there was no necessity for the first officer reporting to him that the vessel was shoaling, for his orders were to keep outside 7 fathoms. The first officer said that he did not report that the steamer was shoaling. At 8 P.M. the third officer relieved the first officer. The first officer swore that he at that time told the third officer the course, to keep the lead going, and to let the master know when the vessel got into 7 fathoms. He also told the third officer what soundings he then had, and that the steamer would very likely get into 7 fathoms, and that she was shoaling. The third officer positively said that he relieved the first officer, who gave him the course N.W.byW.½W. by the bridge and the standard compasses, to take a cast of the lead every half hour, and not to go under 7 fathoms, and that the vessel was then in 8¾ fathoms. He also mentioned that the steamer was shoaling, and that she would probably shoal to about 6 fathoms, and ordered that he should call the master before that happened. After the first officer left the bridge the third officer took a look for the land, but could not see it. He took a sounding at 18 minutes past 8 P.M. for his own satisfaction, because the first officer had told him that the steamer was shoaling, but noticed no difference whatever in the colour of the water. When the third officer was in the act of taking a cast of the lead he felt the vessel strike two or three times in quick succession, and immediately ordered the seacunnies to put the helm hard-a-starboard and sent the lascar, who was on the bridge, for the master, at the same time giving the seacunnies a heave with the wheel himself, but to no purpose. He then looked over the side, and, seeing that her way had stopped, he stopped the engine. By that time the master and the first officer came on the bridge. The master

asked what water there was, when the seacunnie, who had gone into the chains, gave him 2¾ fathoms. Whereupon the third officer took another hand lead line and went and sounded over the port quarter first, and found 2½ fathoms, hard bottom, then went to the other quarter and sounded and got the same water and the same bottom. At the time of the vessel striking the master was on the poop, but afterwards went on the bridge and found that the helm at hard-a-starboard and the engines stopped. He then put the helm amidships, and ordered the vessel easy astern, half speed astern, and full speed astern. Shortly after the engines were put full speed astern, the chief engineer reported that the engines were racing, and that he thought the propeller was gone. The engines were instantly stopped, and an order was given that the boats should be got out. Whilst the boats were being lowered the master felt the steamer rolling slightly, when he sent hands aloft to loosen all square canvas. The steamer's head was then about West. She backed out into about 4¼ fathoms and was then filled on with her head N.W.byW. until she got into 4½ fathoms, when the anchor was dropped. The pumps were sounded and the vessel was found to have been making no water. She remained there until 10 o'clock the next morning, the 27th September. The *Punjaub* struck the ground at about 8-20 P.M. on the 26th September, about 5 miles S.S.W. of Jakáo (Sind coast). The bottom was shingle and small stones; it was then about low-water, the weather appeared to have been fine and clear with a moderate breeze blowing from the S.W.; the sea, being also moderate, was running in a S.W. direction. The *Punjaub* floated off the ground at 9-30 P.M. and was anchored in 4½ fathoms at about 10-50 P.M. At the time the steamer took the ground the log registered 31 miles. The next morning the master saw the coast clearly, and estimated that the steamer was 4 or 4½ miles off it. He then sent off his first officer in one of the vessel's boats to Cutch Mándvi to telegraph the steamer's position to the Company at Bombay, and to direct two buggalows to come to the vessel for the purpose of taking the native deck passengers back to Cutch Mándvi. The master in the meantime sent the third officer to take soundings. There was a conflict of evidence as to when this was done. The master stated that it was done on the morning of the 27th before the steamer was moved. The third officer said that the next morning he went in the mail boat and sounded between S.E. and on E.S.E. direction, three-quarters of a mile from the vessel, and got soundings in 4½ to 5 fathoms very much the same in some places and in others there was mud. He did not go in any other direction to take soundings on that day, but on the following day, the 28th, he took soundings in a westerly direction from the steamer for about 3 miles. For 2¾ miles he got 5 or 4½ fathoms, various bottoms, hard and soft, and after that he got several soundings of 3, 3½, and 4 fathoms, but found the same bottom—small gravel and mud—and went across it several times in different directions. It appeared to have been a small shoal gradually deepening down to 5 fathoms all round. He also went about a quarter of a mile to the northward and got soundings in 5 fathoms, but had no compass in the boat. He said that this shoal was between 6 or 7 miles from the shore, and made a report of the soundings to the master. The master said that he told the third officer to go away W.byN., and to take soundings. That was on the morning of the 27th, when he reported to the master that he had found a patch of 3 or 3¾ fathoms. The master took no further steps for ascertaining the position of that patch except from the bearing of Jakáo. The vessel was anchored at about 4½ miles from the land, with Jakáo bearing N.N.E., when the patch bore about W.byN. of the steamer's position distant 2¾ to 3 miles. The master accounts for his not having taken farther steps to ascertain the position of the patch by his being busily engaged in getting a jury rudder rigged, anticipating the arrival of the S.S. *Euphrates*. The vessel was sub-

sequently by that means moved out into 5¾ fathoms, and finally into 6¾ fathoms. On the 28th two buggalows arrived alongside the *Punjaub* and 58 passengers were sent in them back to Cutch Mándvi. Finally, on the 5th October, the S.S. *Huzara* of the same Company's fleet towed the *Punjaub*, back to Bombay, where she arrived on the morning of the 9th. Owing to the rudder of the *Punjaub* being damaged the task of towing her was a difficult one; but by dint of good seamanship on the part of the master and the officers of the *Huzara* she was safely brought to Bombay. Whilst, however, the two vessels were between the Prongs and the Dolphin lighthouses the *Huzara* had been stopped, in order that the hawsers, with which she was towing the *Punjaub,* might be shortened preparatory to the vessels entering the harbour, and during the progress of this operation a collision occurred, the rails and stanchions of the starboard quarter of the *Huzara* being carried away, whilst some of the rails and stanchions of the *Punjaub* were also damaged. The *Punjaub* was afterwards docked at Bombay for repairs as soon as she had discharged her cargo. The chief engineer stated that the damage she sustained by the grounding was about 28 plates more or less injured on her bottom, the keel also gone from the sternpost, with the rudder post up to 16 feet, the propeller gone, the shaft gone about one inch abaft the sternpost, the rudder carried away 14 feet from the keel, and also broken higher up under the counter. The bottom of the *Punjaub* was put completely out of shape in several places, and being seriously damaged, was sold as a wreck. Original value of *Punjaub;* £45,000; cargo ₹3,86,129. The hull, including all the gear, furniture, boats, &c., was sold by public auction at Bombay for the sum of ₹30,000; the damaged cargo was sold separately, but its amount was not reported. The crew, 58 men, and 58 passengers. No lives lost.

[A Special Court of Inquiry was held at Bombay in the Chief Presidency Magistrate's Court, on the 25th and 27th October and 1st November under the provisions of section 7 of Act V of 1883 (The Indian Merchant Shipping Act) to investigate the circumstances connected with the grounding of the British screw steamer *Punjaub*. The Court recorded that copies of statement of the case, upon which the investigation had been directed, were furnished to the master, the first officer and the third officer before the commencement of the inquiry. It also appeared to the Court likely that this investigation might involve a question as to the suspension of the certificate of the master or the first officer, or the third officer, constituted, under section 13 of the above Act, as its assessors two gentlemen having experience in the Merchant Service. From the evidence before the Court, it appeared that as to the compasses the master considered them correct. The deviation card he thought was taken in 1883, but during his previous command of the vessel up to 21 days before he rejoined her he had been in the habit of working azimuths, and amplitudes, and correcting the card upon all occasions. The compasses were not tested in any way on the present voyage, as they were believed to have been correct, and it was stated no opportunity offered for adjusting them. The master also stated that after leaving Cutch Mándvi he laid his course down to take him 17 miles from the outside bank off the river Indus; that he always steered the course; that he had drawn up directions in his private log-book about 2½ or 3 years ago, *viz.*, after leaving Asar pagoda steer N.W.byW.½W. for 105 miles, then N.W.byW.¾N. for 38 miles, and then North for 42 miles, which will lead into Kurrachee, and that the master always steered according to these directions. The Court observed that the chart, at the time of the accident, was the West coast of India, coast of Sind and Cutch, including the Gulf of Cutch—surveyed by Lieutenant A. W. Reade and others in 1848 and 1850, and corrected at the British Admiralty up to August 1867. The master first stated that he

accounted for the accident because he did not get proper soundings reported to him; and he afterwards said the steamer must have grounded on a patch, or he had wrong soundings reported to him. The first officer considered the grounding of the steamer might have been caused by the wind and sea acting on her port side and drifting her rapidly towards the shore during the latter part of her course on the slack tide. The Court were of opinion from the evidence adduced that it was impossible to come to a clear conclusion as to the place where the *Punjaub* actually stranded. The third officer seemed to have sounded over a patch of 3 fathoms deepening to 5 fathoms all round, which he reported to the master. But the master appeared to have taken no farther steps to ascertain the existence or position of such a patch, and the master did not allude in any way to this patch until after the third officer had been examined by the Court. The first officer, too, never alluded to the patch in his evidence. The Court considered that the master and the first officer placed little faith in the existence of such a patch. It seemed also strange if such a shoal existed it should never have been discovered by any of the steamers trading on the coast. It also appeared an extraordinary circumstance that, after the third officer made his report to the master, no farther steps were taken to verify its existence and to try and fix its position, not only in order to account for the grounding of the vessel, but also for the benefit of other navigators. The master seemed to have taken no efficient steps to fix the position of his vessel on the morning of the casualty. The only position given of the patch was the loose statement of the master :—" I was anchored at about $4\frac{1}{2}$ miles from the land, with Jakáo bearing N.N.E.; the patch bore about W.byN. of me, distant $2\frac{3}{4}$ to 3 miles." The Court observed that, although remembering that the locality of the accident had not been surveyed for many years, and there was a possibility that some unknown shoal might exist, still for the reasons given the Court doubted the probability of the existence of this shoal, and considered it was more probable that after leaving Asar pagoda the steamer might have been nearer to the land than was estimated, the more that the distance was not obtained by the four point bearing problem, but only by a single bearing and the sounding. The deviation of the compasses had not been recently found, and it was likely that the speed the vessel was going might have caused the soundings to have been incorrectly taken—the wind and the sea at the same time setting the steamer in shore—and she might have struck on the shoal bank extending off the shore. In regard to the breaking of the propeller and the rudder, the vessel having grounded at low-water, the Court were of opinion it would have been more prudent for the master to have waited for a rise of tide before moving the engines astern. The Court recorded that one of the assessors were of opinion that greater care might have been given to the compasses, also that the vessel should have been stopped for the purpose of getting correct soundings, but, after the evidence given, it was impossible to state where the *Punjaub* grounded, as the master said that the vessel was afterwards moved; in this he was denied by the third officer, who stated that she was not moved until the second day after the stranding. The assessor therefore accounted for the accident by the steamer being inside the supposed position when off Asar pagoda, the compasses not being correct, and not sufficient care taken in the soundings. The other assessor was of opinion that due care was not taken with the compasses, there being no record in writing of when the compasses were adjusted; the departure from off Asar pagoda was not correct. The master said that the steamer was moved on the morning after the accident, but the third officer denied this, and stated that she was not moved until the second day after the stranding. It was therefore quite impossible to say where the exact position of the casualty was, as no definite position was given. The

assessor accounted for the stranding by the steamer being inside the supposed position when off Asar pagoda, the compasses not being correct, and proper soundings not being taken; but, considering the master's statement that the compasses were adjusted within a few weeks of his joining the steamer, and that the lead was kept going, the assessor was of opinion that no charge should have been made against him. The Court recorded that, however, due allowance should have been made for the not unnatural excitement of the moment. The Court also considered that more attention should have been devoted by the master to ascertaining the errors of the compasses; the course steered from 4-55 P.M., provided the departure was correctly taken, the compasses correct, and the soundings properly ascertained, appeared to have been a safe one. But, taking into consideration the fact that the compasses had not been recently tested, the Court were of opinion that the course steered was an inside one. As, however, the lead was kept going at regular intervals, they did not think that they were justified in attaching any serious blame to the master. The Court concluded by remarking that no doubt in future the master of the S.S. *Punjaub* would see the advisability of ascertaining and recording the deviation of his compass at every opportunity, and of seeing that the greatest care was taken in obtaining correct soundings whilst sounding. The Court accordingly returned to the master, the first, and the third officers their certificates.]

53. The British Indian dingy PUTTON [of Kurrachee, 29 tons register, official number 266], from Kurrachee to Ketbandar with a general cargo. On the 26th September, owing to stress of weather, the sails and a portion of the rigging of the dingy were carried away; at 11 A.M. she sprang a leak, and the crew kept bailing the water out, but were unable to subdue the leak, when the tindal steered her into shallow water, about 12 miles off the Seesha mouth of the river Indus (Sind coast), where she was totally wrecked. Value of dingy, R1,225; cargo all lost, value R1,000. The crew, 6 men, and 14 passengers were saved in the boat belonging to the dingy.

OCTOBER.

54. The Portuguese Native padow ST. ANTONIO [of Goa, 11 tons register, official number 1825, age about 4 years], from Goa to Vengurla, with a cargo of cocoanuts. On the 9th October, at 12 A.M., the padow, when between Redi and Vengurla (Bombay coast), was fouled by the steamer *Washisti* and sank; caused by the wind having fallen light. Value of padow, R400; cargo worth R180 was lost and damaged, and the remainder was saved. The crew, 5 men, were picked up by the steamer *Washisti* and safely landed at Vengurla.

(For an account of the Washisti see Casualties No. 280.)

55. The British Indian schooner VARULU [of Chittagong, 140 tons register, no official number, age 3 years], from Narainganj to Chittagong, with a cargo of jute. The schooner left Narainganj on the 9th October, and proceeded along with safety; on the 14th October, when near Mondoli point in the Jalchira river mouth of the Megna (Sunderbuns), she, owing to the carelessness of the tindal, suddenly grounded on a chur; at 4 P.M. she capsized and broke up. Value of schooner, R7,200; cargo, R7,620. The crew, 12 men, were saved.

56. The Chinese schooner KIM GUAN HUAT [formerly *Her Majesty*, of Penang, 65 tons register, official number 66619, age 14 years], from Tavoy to Penang, with a cargo of rice. It was reported that the schooner left Tavoy, and, after calling at Renoung and Tongka or Junkseylon, made sail for Penang. At 7 A.M. on the 14th October, when off Pulo Lancava, midway between Junkseylon and Penang (Malay Peninsula), the schooner met with heavy weather and sprang a

leak; the crew attended to the pumps unceasingly, but all attempts proved futile as they could get no suction, when on the same evening she foundered. Loss, value of schooner and cargo, not reported. The crew, 12 men, were happily picked up by the Italian barque *Adelaida,* and safely landed at Penang. (The wreck was due to bad weather, and also to the schooner being old.)

57. The British Indian dhoney MAHOMED BUNDER [of Porto Novo, 124 tons register, official number not reported, age 15 years], from Pondicherry to Colombo, with a cargo of animal bones. It appeared that the dhoney was left in charge of the crew when she left Pondicherry in consequence of the tindal having remained behind on business, but was to have joined the craft at Porto Novo by land. Between 5 and 6 P.M. on the 15th October the dhoney anchored in 5 fathoms of water, about half a mile North of the northern boundary pillar of the port (Coromandel coast). On the following day the whole of the crew, with the exception of three men, went ashore to spend the Divali festival, when, in the evening, the wind blowing a strong gale from N.W., she parted from her anchor and became unmanageable; the crew left it to its fate and abandoned her. No efforts were made to save the dhoney, consequently she drifted on the beach and became a total wreck. Value of dhoney, ₹4,000; cargo, ₹3,000. The crew, 13 men, were saved. (It was reported that, had all the crew remained on board, the wreck might have been avoided.)

58. The British Indian brig SANTHANAYAGEE THIRSOMANY ALAGAR [of Negapatam, 141 tons register, official number 3 of 1879, age 11 years], from Cocanada to Negapatam, with a cargo of grain. On the 16th October the brig was lying at anchor in the Negapatam roadstead (Coromandel coast). At midnight, in consequence of a storm which burst over the port, the brig parted her two coir cables; notwithstanding that the crew had veered out all available cable on board she drifted ashore nearly opposite the South boundary pillar and was wrecked. Value of brig, ₹4,000; cargo, ₹6,000. The crew, 14 men; the tindal and one man were on shore at the time of the disaster; the remaining 12 persons who stayed on board were saved by means of a line being got on shore. (The wreck might have been averted had the brig left the Negapatam roadstead and sought shelter at the port of Adirampatnam like others.)

59. The British Indian dhoney MAHALETCHUMI [of Madras, 96 tons register, official number not reported, age 12 years], from Ipurupálem (Kristna) to Madras, with a cargo of casuarina wood. On the 16th October the dhoney was riding at anchor in the Madras roadstead on the North side of the harbour groynes in 12 fathoms of water (Coromandel coast). At 6 A.M., in consequence of stormy weather from the N.E., she began pitching heavily and shipped a great deal of water over all, and, being an open vessel, the sea could not be kept from filling her, when at 5-30 P.M. she foundered. Value of dhoney, ₹2,500; cargo ₹750. The crew, 11 men, left the dhoney and safely got to shore as soon as they perceived that she was water-logged.

60. The Portuguese Native battalla HEERAPRESAD [of Damán, 28 tons register, official number and age not reported], from Ponáni to Broach, with a cargo of cocoanuts. On the 17th October the battalla was lying at anchor off Ponáni, and the weather being very violent at the time, her sail split and she drifted on to the bar at the entrance to the Cochin harbour (Malabár coast), and having filled with water she foundered at 7-30 P.M. The weather was thick and cloudy, and there was a strong gale blowing from the W.N.W. Loss, value of battalla not reported; cargo, ₹1,172. The crew, 8 men, got safely to land in the battalla's boat. (The wreck might have been avoided had the anchor held; but small Native craft were not supposed to be lying out at sea in such bad weather.)

61. The Native battalla HURRY PURSAUD [of Bhávnagar, 50 tons register

no official number, age 27 years], from Cochin to Bhávnagar, with a cargo of coir and mango-wood planks. On the 17th October the battalla was riding at anchor off Ponáni; the weather being very bad at the time, she could not have her wind in time. At 7 P.M. there being a strong gale blowing from the W.N.W., and the weather being thick and cloudy the battalla parted from her anchor, so the tindal made sail with a view to run into the Inner harbour of Cochin for shelter, but the gale was too strong, and the current running out of the river with much force prevented her from doing so, the sail also being carried away, she was drifted on the bar, entrance to Cochin harbour (Malabár coast), where in consequence of the very heavy surf, she sprang a leak and foundered. Value of battalla, ₹2,000; cargo, ₹5,500. The crew, 11 men, were saved in the battalla's boat. (This wreck might have been avoided had the anchor held; but small Native craft were not supposed to be lying out at sea in such bad weather.)

62. The British Indian dhoney SALAMATI [of Tellicherry, 20 tons register, official number and age not known], from Mulpy to Honávar, with a cargo of 27,000 cocoanuts, valued at ₹500. The dhoney set sail on the 7th October, and, having met with strong adverse winds, she anchored on the 18th off Bhúdhargad. The next day, the weather being favourable, she again set sail, and had reached off Hangarkotta, when all of a sudden she experienced stormy and rainy weather, and not being able to face it she anchored; at 11 P.M. her cables parted, and she was driven on to the shore off Tekkatti village near Kundapur (Malabár coast), where she finally capsized and broke up. Value of dhoney, ₹200; cargo, worth ₹250, was lost, and the remainder was saved. The crew, 8 men, and one passenger were saved by jumping over the vessel's side whence they walked ashore.

63. The British Indian wooden pattimar GUNGASAGAR [of Thána, 288 tons register, official number not reported], from Mora to Ponáni, with a cargo of salt, valued at ₹27,808. The tindal stated that the pattimar arrived at the port of Ponáni on the 16th October and had landed 625 bags of salt, but owing to the heavy weather which prevailed on the following day she was forced to leave her anchorage and put out to sea. On the 23rd October, whilst off the port of Beypore (Malabár coast), the pattimar shipped several heavy seas and eventually foundered in 30 fathoms of water. Loss, value of pattimar, ₹25,000; cargo, ₹8,000 worth, was lost, and the remainder was saved. The crew, 21 men, were ...cked up by a Native vessel which happened to be close at hand and landed at ...dagara or Waddakurray, whence they were subsequently sent on to Bombay.

64. The British Indian craft HYDROOS MANJI [of Calicut, 25 tons register, ...icial number 4, age 26 years, but was reported to have been very old and weak], from Kalai to Mangalore, with a cargo of cocoanuts, plantains, &c. On the 26th October the craft arrived off the Mangalore harbour (Malabár coast); at 2-30 P.M. the weather was fine and clear, and there was a moderate breeze from S.W., the tindal not having carried full sail and not having navigated with due allowance for the current, she drifted on shore off the new mouth of the harbour and became a wreck. Value of craft, ₹500; cargo, worth ₹120, was lost, and the remainder was saved. The crew, 9 men, were saved.

NOVEMBER.

65. The British Indian wooden schooner F. MOGLVO [of Chittagong, 167 tons register, official number not reported, age 3 years], from Chittagong to Narainganj in ballast. On the 31st October the schooner was at anchor in the Mondolia-tok, when on the following day (1st November) the wind increased with much force, and as the flood made, a severe S.E. gale began blowing, the tindal was unable to trip the anchor then, in order to take shelter in a

better position; in the afternoon she dragged her anchor, and as the wind shifted to the N.E. the chain parted, one boat broke adrift, the foremast went by the board, and an hour after the mainmast fell, when she eventually grounded at 4 P.M. on Toom chur, off the Jalchira river mouth of the Megna (Sunderbuns). Value of schooner not reported. No cargo on board. The crew, 13 men, were saved.

66. The British Indian wooden brig UMATARA [of Chittagong, 228 tons register, no official number, age not reported], from Narainganj to Chittagong, with a cargo of jute and in ballast. The brig on the 31st October was anchored to the eastward of Lalan chur, when on the next morning (1st November) she made sail, and, as it was blowing very fresh from the eastward, the brig not making way, the tindal anchored her in 4 fathoms of water near the Kuchiamara shoal, in the river Megna (Sunderbuns). At 4 P.M. the wind shifted to N.E., blowing with violence; she parted from one anchor and the tindal let go a second anchor, but this too parted, and she drifted ashore on the Kuchiamara shoal, where she was thrown on her beam ends and eventually filled with water. The crew, being alarmed, immediately took to the boat and safely landed on Kakra chur. The tindal stated that the brig was still visible, but there was no possibility of saving her. Loss, value of brig, not reported; cargo, ₹525. The crew, 15 men. No lives lost.

67. The British Indian schooner HUJINIE [of Chittagong, 55 tons register, official number not reported, age 10 years], from Chittagong to Narainganj in ballast. On the 1st November the schooner, whilst proceeding to Narainganj, met with a strong gale and capsized at 4 P.M. near Toom chur, off the Jalchira river mouth of the Megna (Sunderbuns). Loss, value of schooner, not reported. The crew, 9 men; one life lost.

68. The British Indian wooden brig MYMOONAH [of Chittagong, 182 tons register, official number 8 of 1884, age 11 months], from Narainganj to Chittagong, with a cargo of damaged jute and 10 shackles of chain. On the 1st November the brig was lying at her anchors at the mouth of the Bodu chur, between Siddee and Bidou islands, Megna river (Sunderbuns), when at 3 P.M., owing to a strong gale, she capsized at her moorings. Loss, value of brig, ₹8,000; cargo, ₹145. The crew, 13 men; 10 lives were saved by swimming ashore, and the remaining 3 were lost.

69. The British Indian wooden barque GUNI OSMAN [of Chittagong, 319 tons register, no official number and class, age 15 years], from Chittagong to Narainganj in ballast. The barque left Chittagong on the 29th October, and was proceeding towards Narainganj, but when near Mondolia-tok she anchored in 4 fathoms of water on account of a N.E. gale. On the 1st November, at 2 P.M., the wind increased in violence, and the barque parted from her anchors and drifted ashore at Mondolia-tok, in the Jalchira river mouth of the Megna (Sunderbuns), where she capsized. Loss, value of barque, not reported. Crew 17 men; one man was saved by swimming to another boat, and 16 lives were lost.

70. The British Indian wooden brig HYDROOSE [of Kilakarai, Madura, 164 tons register, official number not reported, age not known], from Chittagong to Narainganj, with 32 tons stone ballast. On the 1st November the brig was lying at anchor in the Jalchira river mouth of the Megna (Sunderbuns), when at 4 P.M., owing to a strong gale from the N.E., she parted from her anchor and capsized. Loss, value of brig, ₹10,000. No cargo on board. The crew, 16 men, and one passenger; 11 lives were lost.

71. The British Indian wooden brig HAMIDER ROSOOL [of Chittagong, 151 tons register, official number not reported, age 4 years], from Chittagong to Narainganj in ballast. On the 1st November the brig, when in the Sundeep channel between Siddee and Bidou, river mouth of the Megna (Sunderbuns),

during a heavy gale was dismasted; at 4 P.M., on account of the hard gale from the N.E. and the strong currents, she capsized, when the crew abandoned her. Loss, value of brig, about R12,000. No cargo on board. The crew, 14 men; 7 lives lost.

72. The French wooden barque FANNY [of Nantes, 314 tons register, official number not reported, classed at Lloyd's A. I., and French Veritas $^3/_3$ L.I. I.], from Bourbon to Pondicherry, with a cargo of copper, hemp, twine, and hooks. It appeared that the barque left Calcutta on the 9th July for Réunion with a cargo of rice duly delivered. On her way she met, in the vicinity of Pondicherry, a cyclone from the 19th to the 21st November, in which she was dismasted. The master stated that on the morning of the 19th November the cyclone commenced with a tremendous sea and heavy N.E. winds, when she was driven past the port of Pondicherry; on the 20th and 21st the wind changed to North, N.W., West, W.S.W., East, South and S.E., when at noon on 21st to S.S.E., after which it moderated. At 2 A.M. on the 20th, whilst 120 miles N.E. of Madras, in latitude 13° 30′ N., longitude 82° 0′ E. (Bay of Bengal), the vessel was thrown on her beam ends, and in the height of the cyclone and sea she threatened not to right again, when at about 10 A.M., in order to save the vessel and the lives on board, the master cut away the mizenmast, and, on its falling, brought down the maintopmast, the maintopgallantmast, also the foretopgallantmast and all the yards of the above masts, and greatly damaged the hull. At 10-30 A.M., the wind abating, permitted the crew to set the jib—the only sail remaining—after which the vessel righted slowly. The sails were all blown away, although they were made fast with extra lashings on the yards; two boats were swept away with everything on deck, except one boat and a few spare spars. The *Fanny* was in bad weather for three days, during which time she was unmanageable, and, having sprung a leak, the crew set the pumps going, but, the leak still continuing, she put into Pondicherry, where she arrived on the afternoon of the 23rd. The barque, after an Admiralty survey, was condemned as unseaworthy by judicial authority. Original value of barque about 50,000 francs; cargo, not known. No damage to the cargo. The hull of the *Fanny* was sold by auction at Pondicherry for the sum of R8,525; and the masts, sails, &c., for R1,317. Crew, 12 men. No lives lost.

73. The British Indian iron paddle steamer SHIRAWUTTEE [of Glasgow, 50 tons register, official number 89942, schooner rigged, age one year, class not reported], from Dábhol to Goa, with about 300 passengers and the mails on board, but no cargo. The *Shirawuttee* left Dábhol at a quarter to 7 o'clock on the night of the 23rd November on her way to Goa; but there was no cargo on board. She drew $7\frac{3}{4}$ feet of water. She had five boats, all in good order and properly equipped; there were all the charts of the coast on board, with a Hindustani translation of the Rules of the Road, and she carried the regulation lights, which appeared to have been burning brightly when the vessel started. The master stated that when he weighed anchor at a quarter to 7 P.M. on the evening in question there was a strong ebb-tide running, but the sea was smooth, the weather was fine, and there was a moderate N.E. wind. According to the usual practice on starting, the whistle of the *Shirawuttee* was blown in order to warn boats and pattimars. The master then commenced to turn the steamer, and, whilst doing so, saw the white light of the steamer *Shastri* half a mile off, about the East end of Anjanvel bay. He was then on the hurricane deck between the wheel and the telegraph, the wheel being in front of the foremast on the hurricane deck. The master of the *Shirawuttee* by consecutive orders of "go ahead" and "turn astern" had the steamer's head nearly halfway round in the middle of the stream, with her head pointing about S.S.E., when he sighted the green light of the steamer *Shastri*. Thinking that the *Shastri* would pass on the *Shira-*

wuttee's starboard side, the master proceeded to the South towards the Yeldur side of the Wáshishti river, going at the rate of 3 knots an hour with no sails set, and his vessel had almost turned and was nearly straight, when he stated that he at once observed the side lights of the *Shastri* very near to him, and heard a whistle from that steamer. The master of the *Shirawuttee* blew his whistle on board; but, as the *Shastri* was so close to him, he did nothing but tried to get away from her. The master of the *Shirawuttee* stated that, according to the Rule of the Road, he should have passed red light to red light; but as there was a strong ebb-tide, and as the *Shastri* came very much nearer to him, he thought that if he acted according to the rule, his vessel would have run into the *Shastri*. He therefore stopped the *Shirawuttee's* engines, and immediately afterwards a collision took place about 2½ cables West of the Yeldur rock, a little to the South of mid-channel and 150 feet off the South shore in the Dábhol or Wáshishti river (Bombay coast). The steamer *Shastri* thus struck the *Shirawuttee* on the starboard side abaft the foremast and near the fore-gangway, and the *Shastri* then turned astern, and the two vessels parted. The master of the *Shirawuttee* accounted for the accident by the strong ebb-tide, the narrowness of the channel at that part of the Dábhol river, insufficient room for turning the vessel before putting her head out of the river, thereby not being perfectly under command of the helm, and the steamer *Shastri* being quite close. The *Shirawuttee* was struck some 30 or 40 feet from her stem on the starboard side near her green light, and the hole made was 8 feet broad by 10 feet long. One plate was broken and another was carried away 6 feet in breadth; the plate above it and the one below it were partly broken. After the collision full speed was given; the accident had caused her head to turn to the shore; the tide had also assisted in turning her stern. The *Shirawuttee* was beached in shallow water with the view of her being subsequently raised. The master used the pumps, but the water gained rapidly, and at 9 o'clock that night the water commenced coming into the engine-room through the bulkheads; the crew endeavoured to procure assistance, but could not get any. The Police, however, supplied the master with 11 men, but they ran away after working a couple of hours, when the master and the men did all they could to keep the water under, but were unable to do so. The master in the meantime tried the bilge injection and pumped the water out; but when there was a rush of water, he could not work the engine; the donkey engine was going on pumping till midnight, but with no effect. At 10 A.M. the next morning (the 24th November) the hawser gave way, and the steamer *Shirawuttee* slipped and went down into 4 or 5 fathoms of water. Loss: value of *Shirawuttee*, £7,000. The crew, 30 men and 300 passengers, were saved in the steamer's boats. The dead body of a boy—a passenger, about 12 years old—was found on board the *Shirawuttee* between the decks with the legs broken, near the side of the plate which had been broken by the collision. It appeared also that three other persons (passengers) were seriously injured by the accident.

[A Special Court of Inquiry was held at Bombay, in the Chief Presidency Magistrate's Court, on the 8th, 9th, 10th, 11th, 12th, and 16th December, under the provisions of sections 7 and 9 of Act V of 1883 (The Indian Merchant Shipping Act) to conduct an investigation into the circumstances connected with the collision between the steamers *Shastri* and *Shirawuttee*. The Court recorded that as the master of the steamer *Shastri* was not present, and it seemed desirable to the Court that the master of both the steamers *Shastri* and *Shirawuttee* should have been present in Court at the commencement of the investigation, they adjourned for a day. On the 9th copies of the statement of the case upon which the inquiry had been directed were furnished to the masters of the *Shastri* and *Shirawuttee* before the commencement of

the inquiry. The President, on reading the papers received with the Resolution of the Government appointing the Court, it appeared that this investigation was likely to involve the consideration of the question as to the cancellation or suspension of one or more certificates; the Court therefore, under section 13 of the above Act, constituted as its assessors two persons having experience in the Merchant Service. The Court then handed a copy of the charge, with a statement of the grounds for such charge, to the master of the *Shirawuttee,* who stated that he had a defence to make. He heard the whole of the evidence given by the witnesses in the case, and wished some of them to have been recalled for the purpose of cross-examining them, and desired to call his serang and other witnesses. The Solicitor thereupon replied that he had consulted his client (the master of the *Shirawuttee*), who did not wish to recall any of the witnesses or to call any other witness. The Court also handed a copy of the charge, with a statement of the grounds for such charge, to the master of the *Shastri,* who said that he denied the truth of the charge and had a defence to make. He heard all the evidence given by the witnesses in the case, but did not wish the evidence to be read over or to call any witnesses. The Court, after a careful consideration of the evidence, were of opinion that the neglect of the master of the *Shirawuttee* to keep on his proper side of the channel in accordance with Article 21 of the Regulations for preventing collisions at sea, and also his neglect in not turning astern full speed when he saw the *Shastri* approaching him so closely, were the causes of the casualty having occurred. The Court considered that there was sufficient time for the *Shirawuttee* to have turned after leaving her anchorage, and to have reached her proper position on the North side of the channel prior to the time of the accident, if she had been properly handled. If the master of the *Shirawuttee* had kept his helm hard-a-port after turning, instead of steadying it, the accident would have been avoided; again, if she had gone full speed astern at once on the *Shastri* approaching her so closely, the *Shirawuttee* having a right-handed propeller, the act of turning astern would have brought that vessel's head to the starboard and in the direction of the proper side of the channel and clear of the *Shastri.* With regard to the conduct of the master of the *Shastri,* considering the narrowness of the channel, the very large number of passengers carried by steamers calling at Dábhol, and the difficulties that a vessel outward bound and turning on an ebb-tide might have had to encounter, the Court were of opinion that the master of the *Shastri,* as a prudent precaution, ought to have reduced his speed so as to just have stemmed the tide and kept steerage way on his vessel from the time he saw the steamer *Shirawuttee* was turning until she was fully round and pointed fair for going out, which would have delayed his arrival at Dábhol by a few minutes only. The Court observed that it was to be regretted that one boy had lost his life and three other persons had been seriously injured by the casualty. The *Shirawuttee* and the *Shastri* being local coasting steamers commanded by persons holding certificates of competency granted by the Government of Bombay, the Court had only to send in its report for the Government to take such notice as they thought proper of the conduct of the masters of those vessels. In conclusion, the Court observed that outgoing vessels on an ebb-tide seemed to have encountered difficulties in turning with their engines off the Dábhol bandar, and on occasions were compelled to go close to the south shore, and they suggested to the Government the desirability of a rule being passed, compelling steamers leaving the bandar on an ebb-tide to be swung by hawsers from the bandar or from moorings before proceeding out of the Wáshishti river.]

The Governor of Bombay remarked that the Court, with whom the skilled members and the skilled witnesses agreed, held that the master of the *Shirawuttee* was chiefly to blame, in that he disregarded the Rule of the Road which

the master of the *Shastri* expected him to have followed. The latter, on the other hand, was held "not altogether free from blame," inasmuch as, having the advantage of a steamer underweigh and stemming the tide, he did not use greater care in having approached a steamer turning, and therefore drifting with the strong ebb-tide. The Governor of Bombay, on a review of the proceedings, was of opinion that the masters of both steamers erred in judgment, and directed that they be cautioned and their certificates returned. The Court concluded their report as follows: "In conclusion, the Court would observe that outgoing vessels on an ebb-tide seem to encounter difficulties in turning with their engines off the Dábhol bandar, and on occasions are compelled to go close to the south shore, and they would suggest to the Government the desirability of a rule being passed, compelling steamers leaving the bandar on an ebb-tide to be swung by hawsers from the bandar or for moorings before proceeding out of the creek." The Governor of Bombay approved of this suggestion, and desired that the Port Officer be requested to frame a rule in accordance therewith.

(For an account of this collision see Casualties No. 324. It was reported that the steamer Shirawuttee was raised successfully on the spring tides with the assistance of a British India Steam Navigation Company's steamer and safely towed into Bombay harbour.)

74. The British Indian padow RATNAGIRI [of Bombay, 28 tons register, official number 3568, age 41 years], from Goa to Dholera, with a cargo of cocoanuts. On the 24th November the padow was anchored in the Dholera creek (Gulf of Cambay), when at 6 P.M., owing to the sand being washed away by the force of the current from under her bows and stern, she grounded on a sand-bank, where she soon afterwards broke up. Loss, value of padow, ₹500; cargo, worth ₹40 was lost, and the remainder, valued at ₹1,630, were saved. Crew, 10 men. No lives lost. (The wreck was caused by the tindal having anchored the padow in a dangerous position.)

75. The British Burman schooner AMHERSTIA [of Maulmain, 61 tons register, official number 1 of 1883, age 19 years], from Rangoon to Maulmain, with a cargo of kerosine oil, &c. The master of the schooner stated that he proceeded from Rangoon on the 27th November, bound for Maulmain, with a cargo of kerosine oil, leaf mats, lacquered ware, &c. On the following day, from Elephant point, he tried to steer through the Western channel, but the wind being very strong from North and East and the schooner pitching about heavily, he was unsuccessful. At midnight of that day the master, on having the vessel pumped, as there was always a little water standing, found after a few hours that the crew were unable to work the pumps any longer because there was too much water in her hold, whereupon the master turned round and ran towards the shore. At 4 A.M., on the 29th, the China Ba-keer light being visible the lead was hove, and 5 fathoms was obtained, and, the tide being high, the master attempted to get to the bar, but to no avail, as unhappily the schooner drove to leeward and stranded on the China Ba-keer sands, Gulf of Martaban (Burma coast). Immediately after striking the master ordered all the sails to be furled with the exception of the foretrysail, and with the aid of the maintrysail he endeavoured to get her off, and thus proceed up to Rangoon, but it proved furtile, as the water rushed in from both sides, and very shortly afterwards she broke up. Loss, value of schooner, about ₹4,000; cargo all lost, value ₹4,835. The crew, 8 men; one life lost; the remaining men walked ashore at low-tide. (The master accounted for the loss of the schooner by saying that he ran her ashore, to save the lives on board because she was leaky. It was reported that the particulars had been furnished by the owner of the schooner, as the shipwrecked men could not be found. But the Chief Commissioner of British Burma directed that the master of the *Amherstia* should be prosecuted before a Rangoon Magis-

trate under section (6), clause (3) of Act V of 1883 for having failed to give notice of the disaster to his vessel on his arrival at Rangoon. On the 26th December the master arrived from Maulmain, and on being interrogated as to his reasons for not reporting such loss, pleaded ignorance of the law.)

[A Special Court of Inquiry was held at Rangoon on the 8th and 22nd January 1885 in the District Magistrate's Court under section 7 of Act V of 1883 (The Indian Merchant Shipping Act) to investigate the circumstances attending the stranding and subsequent loss of the schooner *Amherstia*. The Court recorded that after taking the evidence brought forward by the Prosecutor, they were of opinion that the *Amherstia* was wrecked on the China Ba-keer sands. The Court were further of opinion that no blame rested with the master of the schooner, and that he did what he could to save the vessel and the lives of the crew. The *Amherstia,* through stress of weather, became leaky and unmanageable, and was driven on to the sands whilst endeavouring to reach the Rangoon river. The Court accordingly acquitted the master.]

The Chief Commissioner of British Burma concurred in the finding of the Court.

DECEMBER.

76. The Native craft MAHADEOPERSAD [of Dwárka (Gujarát) 75 tons register, official number 1032, age about 30 years], from Cochin to Bombay, with a cargo of copra oil, coir, &c. On the 2nd December, at about 2 A.M., owing to strong easterly winds, the craft sprung a leak whilst off Amba bandar (Bombay coast), and foundered in 20 fathoms of water. Loss, value of craft, ₹5,000; cargo all lost, value ₹5,262. The crew, 10 men, were safely landed at Jaygad in a boat belonging to the craft.

77. The Cingalese dhoney AMAPORANALETCHEMY [of Jaffna, 84 tons register, official number 82038, age one year], from Trincomalie to Batticaloa, with a cargo of salt and sundries. On the 22nd December the dhoney was anchored at the entrance to the port of Batticaloa (East coast of Ceylon), when at 10 A.M., owing to the strong currents which prevailed, she stranded on the bar. Boats were sent out by the Custom's officers to render assistance to get the dhoney off the ground and save the cargo, but it proved of no avail, as she soon afterwards foundered and finally broke up. At the time of the accident it was slack tide, the weather was cloudy, and there was a strong wind from the N.E. Value of dhoney and cargo not reported. A portion of the cargo was saved, but its value was not known. The crew, 11 men, were saved in the Custom's boats. (The disaster, it was reported, might have been avoided if the dhoney had been warped into the lake.)

78. The British iron screw steamer RAISBY [of London, 1,502 tons register, official number 85090, age 3 years, classed at Lloyd's A.I. 100], from Hong Kong to New York, with a cargo of tea, curios, silk and hair. On the 25th December the steamer was proceeding up the Red sea, when at 3-30 P.M., whilst entering the Small Straits of Perim, she struck on the Azalea reef in latitude 12° 38′ N., longitude 43° 26′ E. On the 28th tugs and lighters were sent off to save the cargo. It seemed that the steamer hung amidship and had a rock through her bottom, and from the foremast to the engines on the port side the sea swept over her. On the following day the *Raisby* laid broadside on to the heavy sea, and as the master saw no chance of getting her off, and her bottom being nearly out, she was ultimately abandoned as a constructive total loss. The tugs and lighters, with the aid of the master and the officers, assisted in saving 2,400 cases of tea and curios. On the 14th January the master of the S.S. *Cascapedia,* together with the Lloyds' Surveyor, held a survey on the steamer, when it was recommended, after a careful examination, that the *Raisby* be abandoned, as it was impossible to save

her. Original value of *Raisby* £50,000; cargo £30,000. The greater portion of the cargo was saved and landed at Aden, supposed to have been valued at £25,000; the remainder was lost. Lloyds Agents at Aden reported that they were not aware whether the hull was sold. No lives lost. (No account of this disaster reached this Department, and no official information could be obtained, save that which had been extracted from the local papers.)

[A Board of Trade Inquiry was held at Sunderland to investigate the circumstances attending the stranding of the above vessel. The Court observed that the steamer *Raisby* left Singapore on the 8th December bound for New York; she put into Aden for coals on the 24th, left the same night, and early the next morning stranded on the Azalea reef, off Azalea point, Perim island. The Court delivered their judgment, which was that the vessel was stranded through the over-confidence of the master in not having made use of means to verify his position, and they marked their sense of his neglect by finding him in default and suspended his certificate for a period of three months. The Court recommended that the master be granted a mate's certificate in the meantime.]

79. The Chinese junk KIM HUAT HIN [of Penang, 70 tons register, official number 70012, age 12 years], from Penang and Acheen to Nicobars, with a general cargo. It appeared that the junk left Penang on the 4th November and proceeded to Acheen, whence she, after having shipped a quantity of barter articles for the purpose of trading at Nicobar islands, sailed on the 2nd December. On the 20th she arrived at Great Nicobar islands, where, in defiance of regulations, a party of 8 men were, without a pass, landed for procuring cocoanuts, and also for making copra, whilst the junk put off and made sail for Little Nicobar islands in order to form a separate establishment there. She anchored off the southern side of the Little Nicobar, and on the night of the 30th she drifted on a small coral reef about midway between the S.E. and the S.W. points of the island. The crew, finding that her bottom was stove in on the rocks, and that she could not be floated, stripped off the copper sheathing from her bottom. Loss, value of junk and cargo not reported. The crew, 20 men, were saved and subsequently landed at Penang. (This wreck was probably caused owing to the tindal having anchored the junk too close in shore.)

TABULAR STATEMENT OF THE CASUALTIES

ARRANGED IN THE ORDER IN WHICH THEY OCCURRED.

Number.	Name of Vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
1	*Angelica*	884	British screw steamer	1st January	Basra	London	General; value not reported.
2	*Malek*	1,054	Ditto	3rd do.	Cardiff	Basra	Coals, &c.; value not stated.
3	*Coventina*	1,062	Ditto	4th do.	Basra	Jiddah	General; value not given.
4	*Labsawai*	25	Native padow	5th do.	Bombay	Cambay	Kerosine oil, cloth, &c.; value not given.
5-6	*Coventina*	1,062	British screw steamer	8th & 9th do.	Basra	Jiddah	General; value not stated.
7	*Ardmillan*	1,655	British ship	11th do.	Buenos Ayres	Rangoon	In ballast
8	*Ava*	207	British steamer	Do. do.	Employed as a tug steamer in		the Rangoon river
9	*Ramprasad*	25	British Indian padow	12th do.	Bombay	Dholera	Cocoanuts, r ce, and kerosine oil; value ₹3,628.
10	*Nerbudda*	1,948	British screw steamer	Do. do.	Calcutta	Bombay *viâ* coast ports.	General; value not given
11	*Cholon*	1,972	French screw steamer	14th do.	Oran (Algeria)	Tongking	611 troops, but no cargo on board.
12	*Sierra Morena*	1,885	British ship	16th do.	Chittagong	Dundee	Jute; value not reported
13	*Yeshwanti*	8	British Indian craft	17th do.	Dáhánu	Maroli	In ballast
14	*British Army*	1,289	British barque	18th do.	Rio Janeiro	Chittagong	580 tons ballast
15	*Emmi & Otto*	266	German brig	19th do.	Calcutta	Port Natal	General; value not given
16	*Ruparel*	35	British Indian padow	Do. do.	Umbargaon	Surat	Teak-wood; value ₹ 2,238.
17	*Cocanada*	547	British screw steamer	20th do.	Calcutta	Rangoon *viâ* Burman coast ports.	General; value not reported.
18	*Maharani*	1,617	Ditto	Do. do.	Ditto	Port Blair	Ditto ditto
19	*Cashmere*	750	British steamer	22nd do.	Being towed by the steamer *Hetty* from the Union dock, Howrah, to Garden Reach for repairs.		
20	*Mermaid*	250	British brig	Do. do.	Employed as a lightship at		the Sandheads
21	*Cholon*	1,972	French screw steamer	23rd do.	Oran (Algeria)	Tongking	611 troops, but no cargo on board.
22	*Pomona*	1,199	British ship	26th do.	Liverpool	Rangoon	1,647 tons coals; value ₹37,881.
23	*Bussorah*	1,292	British screw steamer	27th do.	Basra	London, *viâ* Bushire.	General; value not known.
24	*Angela*	872	Italian barque	29th do.	Bremen	Rangoon	Salt and general; value not stated.
25	*Madeline Rickmers*	1,277	German barque	Do. do.	Singapore	Ditto	In ballast
26	*Padareth*	36	British Indian padow	Do. do.	Bombay	Mangalore	Salt; value not given
27	*Darya Mowjee*	12	British Indian muchwa	30th do.	Revdanda	Antora	Jaggery; value ₹380
28	*City of Khios*	2,121	British screw steamer	1st February	Calcutta	London	General; value unknown
29	*Lakisar*	29	British Indian craft	3rd do.	Keti bandar	Kurrachee	Rice, mats, and punkahs; value ₹400.
30	*Chupra*	1,432	British screw steamer	Do. do.	Calcutta	Bombay *viâ* coast ports.	General; value not reported.
31	*obile*	916	British Indian steamer	4th do.	Bushire	Basra	Ditto ditto

Waters during the year 1884.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
On the bank at the entrance to the Basra river	Persian Gulf . .	Grounding. Carelessness of the master	None lost .	None lost.
On a sand bank in the Inner anchorage, Jiddah harbour.	Red sea . . .	Ditto ditto .	Ditto .	Partially lost; value £30.
About 300 miles eastward of Aden . .	Gulf of Aden . .	Damage to engines. Not reported .	Ditto .	None lost.
Off Gangwa	Gulf of Cambay .	Foundering. Carelessness of the tindal	Ditto .	₹1,426 worth was lost and ₹1,200 damaged.
110 miles S. ½ W. of Jiddah harbour . .	Red sea . . .	Damage to engines. Gale . .	Ditto .	None lost.
About 10 miles S.E. of the China Ba-keer lighthouse, Gulf of Martaban.	Burma coast .	Collision with the S.S. *Ava*. Unavoidable.	Ditto .	.....
Ditto ditto .	Ditto .	Collision with the ship *Ardmillan*. Unavoidable.	Ditto .	.....
Near a sand bank off Dholera . . .	Gulf of Cambay .	Foundering. Carelessness of the tindal	Ditto .	₹1,379 worth was lost.
In the Dredge channel, abreast of Kedgeree, about 300 yards W.S.W. of the Nun buoy.	Hooghly river .	Grounding. Unavoidable . . .	Ditto .	None lost.
About 330 miles eastward of Aden . .	Gulf of Aden . .	Damage to engines. Unavoidable .	Ditto .	.....
On the South bank of the Kornafuli river near the No. 1 buoy.	Chittagong coast .	Grounding. Carelessness of the pilot .	Ditto .	None lost.
At the mouth of the Tárápur creek . .	Bombay coast .	Capsized. Heavy weather . .	Ditto .	.....
On the bank below Kumar khali in the Kornafuli river.	Chittagong coast .	Grounding. Carelessness of the pilot .	Ditto .	.....
On the bank below the Bellary tower . .	Hooghly river .	Grounding. Unavoidable . . .	Ditto .	None lost.
Off the Karadi bandar in the Tápti or Surat river.	Gulf of Cambay .	Capsized. Tides and currents . .	Ditto .	₹ 94 worth was lost.
At the Moyapur bar crossing, the Eastern Fairway track marks being a little open.	Hooghly river .	Collision with the S.S. *Maharani*. Carelessness of the pilot of the S.S. *Maharani*.	Ditto .	None lost.
Ditto ditto . .	Ditto . .	Collision with the S.S. *Cocanada*. Carelessness of the pilot of the S.S. *Maharani*.	Ditto .	Ditto.
Near the No. 23 buoy at the northern entrance of the Hooghly bridge.	Ditto . .	Collision with the lightship *Mermaid*. Carelessness of the master of the steamer *Hetty*.	Ditto .	.....
Ditto ditto . .	Ditto . .	Collision with the steamer *Cashmere*. Carelessness of the master of the steamer *Hetty*.	Ditto .	.....
120 miles westward of Cape Comorin in latitude 7° 49′ N., longitude 75° 37′ E.	Indian ocean . .	Damage to engines. Unavoidable	Ditto .	.....
At the buoy off the Dalla dock in the Rangoon river.	Burma coast . .	Loss of anchor and chain. Unavoidable	Dit o .	None lost.
On the bar at the entrance to the Basra river	Persian Gulf . .	Grounding. Carelessness of the pilot .	Ditto .	Not reported.
Off the Shulay pagoda wharf in the Rangoon river.	Burma coast .	Collision with the barque *Madeline Rickmers*. Unavoidable.	Dito .	None lost.
Ditto ditto .	Ditto . .	Collision with the barque *Angela*. Unavoidable.	Ditto .	.....
On the northern sand spit inside the Mangalore bar near the old or Goorpoor mouth.	Malabár coast . .	Grounding. Carelessness of the tindal	Ditto .	None lost.
Near the Kundari island fort, entrance to Bombay harbour.	Bombay coast .	Capsized. Stress of weather . .	Ditto .	₹100 worth was lost and the remainder damaged.
On the flat below Fisherman's point . .	Hooghly river .	Grounding. Carelessness of the pilot .	Ditto .	None lost.
1½ miles from the Gizree mouth of the river Indus.	Sind coast . .	Capsized. Stress of weather . .	Ditto .	Totally lost.
13 miles to the westward of the Kárwár lighthouse.	Bombay coast .	Collision with a pattimar (name unknown). The pattimar not exhibiting lights.	Ditto .	None lost.
At Fao in the Basra river . . .	Persian Gulf . .	Collision with the S.S. *Arabia*. Carelessness of the master of the S.S. *Arabia*.	Ditto .	Ditto.

Number.	Name of Vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
32	*Abdool Cader Hamed Bux.*	154	British Indian barque	4th February	Maulmain	Negapatam	Teak timber; value ₹10,605.
33	*Futtehul Monan Robia*	137	British Indian brig	6th do.	Chittagong	Rangoon	Miscellaneous; value ₹50,000.
34	*Meera Hossein*	563	British Indian barque	Do. do.	Coringa	Chittagong	In ballast
35	*Huripussa*	86	Native padow	7th do.	Mangalore	Bombay	General; value not reported.
36	*Thomas Turnbull*	1,332	British screw steamer	Do. do.	Cardiff	Aden	2,345 tons coals; value ₹43,935.
37	*Kistna*	2,149	British ship	8th do.	Liverpool	Calcutta	Salt; value not stated.
38	*Enterprize*	384	British steamer	Do. do.	Employed as a tug steamer in		the Hooghly river
39	*Nederland en Oranje*	1,514	Dutch screw steamer	Do. do.	Amsterdam	Batavia	General; value not given.
40	*Calcutta*	549	British screw steamer	10th do.	Calcutta	Chittagong	Ditto ditto
41	*Sophia*	195	British Indian brig	Do. do.	Chittagong	Cochin	Paddy and rice; value ₹8,000.
42	*Dastagheri*	10	British Indian muchwa	Do. do.	Mulpy	Mangalore	Rice; value ₹1,000
43	*Asia*	1,139	British screw steamer	12th do.	Madras	Gopalpur	General; value not known.
44	*Avagyee*	247	Ditto	Do. do.	Mergui	Rangoon	Ditto ditto
45	*Sallamati*	4	British Indian craft	13th do.	Bánkot	Seaward	Fishing nets; value not stated.
46	*Maria Berner*	260	Norwegian schooner	Do. do.	Calcutta	Port Natal	General; value not reported.
47	*Defiance*	222	British paddle steamer	Do. do.	Employed as	a tug steamer in	the Hooghly river
48	*Baghdad*	809	British screw steamer	Do. do.	Rangoon	Calcutta	409 passengers and a general cargo; value not given.
49	*Osaka*	527	British barque	Do. do.	Hong Kong	Rangoon	215 tons stone ballast
50	*White Rose*	1,557	British ship	14th do.	Chittagong	Cochin	Paddy and rice; value ₹1,25,000.
51	*Suffinathoolah*	299	British Indian barque	15th do.	Rangoon	Negapatam	300 tons teak timber; value ₹23,368.
52	*Centurion*	1,194	British ship	Do. do.	Calcutta	Havre	1,690 tons general; value unknown.
53	*Aston Hall*	2,333	British screw steamer	16th do.	Liverpool	Calcutta	General; value £50,000
54	*Carmona*	2,447	Ditto	Do. do.	London	Ditto	General; value not given.
55	*Binga Fotal Chowala*	43	British Indian brig	23rd do.	Bongsir Chur	Chittagong	Lime, moong, sugar, &c.; value ₹1,500.
56	*Adria*	781	British screw steamer	Do. do.	Mauritius	Bombay	Sugar; value not stated
57	*Reliance*	216	British Indian paddle steamer.	Do. do.	Calcutta	Chándbali	General; value not reported.
58	*Winchester*	1,435	British screw steamer	Do. do.	Glasgow	Bombay	2,596 tons coals; value ₹40,240.
59	*Daria Dowlat*	31	British Indian padow	24th do.	Bombay	Dholera	Rice, copra, dates, &c.; value ₹4,828.
60	*Ottone*	610	Italian barque	Do. do.	Table Bay	Maulmain	In ballast
61	*Sumbhal*	5	British Indian muchwa	Do. do.	Manori	Naughar	Ditto

Waters during the year 1884—continued.

Position of casualty and name of shoal &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
On the Bheeloo-gywon sands, entrance to the Maulmain or Salween river.	Burma coast	Grounding. Unavoidable	None lost	None lost.
Abreast of Messrs. Determes and Company's rice mills in the Kornafuli river.	Chittagong coast	Collision with the barque *Meera Hossein*. Unavoidable.	Ditto	Ditto.
Ditto ditto	Ditto	Collision with the brig *Futtehul Monan Robia*. Unavoidable.	Ditto	.....
On the Northern sand spit, outside the old or Goorpoor river mouth, Mangalore harbour.	Malabár coast	Grounding. Eddy tide	Ditto	Not reported.
Near Jebel Zukur island, in latitude 14° 05′N., longitude 42° 47′ E.	Red sea	Damage to engines. Not known	Ditto	None lost.
On the bank off the Hooghly point, to the southward of the *Waterloo* wreck buoy.	Hooghly river	Grounding. Unavoidable	Ditto	Ditto.
In the Eastern channel, in latitude 21° 18′ 30″ N., longitude 88° 07′ 15″ E.	Sandheads	Collision with the Bell buoy. Unavoidable.	Ditto	.....
About 60 miles S.W. of Minikoi island, in latitude 8° N., longitude 72° E.	Maldivhs	Damage to engines. Not reported	Ditto	None lost.
Off the South patches, Kutubdea banks, in latitude 21° 32′ N., longitude 91° 30′ E.	Chittagong coast	Collision with the brig *Sophia*. Carelessness of the third officer of the S.S. *Calcutta*.	Ditto	Ditto.
Ditto ditto	Ditto	Collision with the S.S. *Calcutta*. Carelessness of the third officer of the S.S. *Calcutta*.	Ditto	Ditto.
On the northern sand spit, outside the old or Goorpoor river mouth, Mangalore harbour.	Malabár coast	Grounding. Carelessness of the tindal	Ditto	R100 worth was lost.
Off the Commissariat wharf in the Rangoon river.	Burma coast	Collision with the S.S. *Avagyee*. Eddy tide.	Ditto	None lost.
Ditto ditto	Ditto	Collision with the S.S. *Asia*. Eddy tide	Ditto	Ditto.
On the bar at the entrance to the Sávitri or Bánkot river.	Bombay coast	Collision with the S.S. *Krishna*. Carelessness of the master of the steamer.	Ditto	Ditto.
A little below the Kidderpur swinging moorings	Hooghly river	Collision with the tug *Defiance*. Carelessness of the master of the steam-tug.	Ditto	Partially damaged, to what extent not known.
Just below the Government dockyard at Kidderpur.	Ditto	Collision with the schooner *Maria Berner*. Carelessness of the master of the steamer *Defiance*.	Ditto	.....
Below the Hastings' buoy in the Rangoon river.	Burma coast	Collision with the barque *Osaka*. Eddy tide.	Ditto	None lost.
Ditto ditto	Ditto	Collision with the S.S. *Baghdad*. Eddy tide.	Ditto	.....
On the bank off the Juldia anchorage, in the Kornafuli river.	Chittagong coast	Grounding. Carelessness of the pilot of the tug *Albert*.	Ditto	None lost.
On the Liffey sands in the Rangoon river	Burma coast	Grounding. Carelessness of the master of the barque.	Ditto	Ditto.
At No. 6, Hastings' moorings, third berth	Hooghly river	Fire. Unknown	Ditto	Partially lost; value R13,400.
On the bank at the Howrah side of the river, opposite Prinseps' ghât.	Ditto	Grounding. Carelessness of the assistant harbour master.	Ditto	None lost.
Ditto ditto	Ditto	Ditto ditto	Ditto	Ditto.
Near the Shekander khal in the Jalchira river mouth of the Megna.	Sunderbuns	Sprung a leak. Bad caulking	Ditto	R750 worth was lost.
Off the Pilots' station, entrance to Bombay harbour.	Bombay coast	Damage to engines. Unavoidable	Ditto	None lost.
In the Eden channel, abreast of the Upper Eden channel buoys.	Hooghly river	Ditto ditto	Ditto	Not reported.
On a shoal about 30 miles N.N.W. of Perim island.	Red sea	Stranding. Carelessness of the master	Ditto	Ditto.
Near a sand bank off Dholera	Gulf of Cambay	Capsized. Carelessness of the tindal	Ditto	R899 worth was lost.
On the Bheeloo-gywon sands near the No. 8 red buoy, entrance to the Maulmain or Salween river.	Burma coast	Grounding. Unavoidable	Ditto	.....
About 200 yards to the N.W. of the Kaman creek, Basseen creek.	Bombay coast	Capsized. Stress of weather	Ditto	..

Number.	Name of Vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
62	*Khengty*	10	British Indian muchwa	25th February	Nágothna	Bombay	Firewood; value ₹160.
63	*Laxmee Prasád*	45	British Indian padow	Do. do.	Padani	Dholera	Ságli wood; value ₹1,192.
64	*Husara*	1,344	British screw steamer	26th do.	Calcutta	Bombay	General; value not stated.
65	*Myvanwy*	162	British schooner	27th do.	Ditto	Port Natal	Rice; value not reported.
66	*Investigator*	515	British paddle steamer	Do. do.	Employed on survey duty in the Rangoon river.		
67	*Jalaprasad*	40	British Indian padow	28th do.	Dwárka	Kurrachee	Jaggery, tamarind, &c.; value ₹876.
68	*Olaf Trygvason*	871	Norwegian ship	Do. do.	Bassein (Burma)	The United Kingdom.	Rice; value ₹77,000.
69	*Tyrone*	250	British paddle steamer	Do. do.	Calcutta	Chándbali	General; value not known.
70	*Medina*	524	British screw steamer	Do. do.	Ditto	Ditto	Ditto ditto
71	*Omrájan*	84	British Indian schooner	Do. do.	Chittagong	Naraingunj	100 tons salt; value ₹400.
72	*Chanda*	1,304	British screw steamer	5th March	Bombay	Calcutta	General; value not given.
73	*Chindwara*	1,533	Ditto	6th do.	Ditto	Ditto	Ditto ditto
74	*Heraprasad*	12	British Indian muchwa	7th do.	Bilimora	Cambay	Jaggery and tamarind; value ₹922.
75	*Wega*	1,115	German ship	8th do.	Bremen	Rangoon	General; value not stated.
76	*Shahjehan*	1,036	British screw steamer	Do. do.	Calcutta	Penang *viâ* Akyab and Rangoon.	Rice and gunny bales; value not given.
77	*Laxmi*	5	British Indian muchwa	9th do.	Thána	Basseen	Liquor; value ₹1,350.
78	*Ruparel*	16	British Indian padow	10th do.	Bilimora	Bombay	Tamarind and mats; value ₹745.
79	*Jamna Sagár*	Not reported.	British Indian craft	11th do	Bombay	Kárwár	In ballast
80	*Cervin*	1,241	British screw steamer	Do. do.	Negapatam	Rangoon	345 tons, water ballast.
81	*Carmona*	2,447	Ditto	Do. do.	Calcutta	London	General; value ₹6,00,000.
82	*Karamania*	2,045	Ditto	Do. do.	Glasgow	Calcutta	Piece-goods, iron, and locomotives; value £75,000.
83	*Poitou*	1,544	French screw steamer	Do. do.	Singapore	Rangoon	500 tons, water ballast.
84	*Carmona*	2,447	British screw steamer	13th do.	Calcutta	London	General; value ₹6,00,000.
85	*Busheer*	547	Ditto	14th do.	Rangoon	Calcutta	General; value not stated.
86	*Commilla*	550	Ditto	Do. do.	Akyab	Chittagong	Dittoo ditto
87	*Avagyee*	247	Ditto	17th do.	Rangoon	Tavoy	Ditto ditto
88	*Norwester*	546	British barque	Do. do.	Ditto	Rio Janeiro	Rice; value not known.
89	*Daria Doulat*	45	British Indian padow	20th do.	Surat	Bombay	Cotton; value ₹13,194.
90	*Gávaríprasad*	23	British Indian muchwa	23rd do.	Bombay	Surat	Coals; value ₹528

Waters during the year 1884—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
On a shoal near Jambooltep in the Nágothna river.	Bombay coast	Grounding. Carelessness of the tindal.	None lost	Slightly damaged.
On a sand bank off Dholera	Gulf of Cambay	Capsized. Carelessness of the tindal	Ditto	₹154 worth was lost.
On Cross island reef, Bombay harbour; the Middle Ground bearing S. by W., and the Castle flagstaff S.W. by W.	Bombay coast	Grounding. Carelessness of the pilot	Ditto	None lost.
On the spit of the Sankral sand, close to the buoy.	Hooghly river	Ditto ditto.	Ditto	Ditto.
Near the Hastings' shoal in the Rangoon river.	Burma coast	Collision with a boat (name unknown). Carelessness of the crew of the boat.	Ditto	.....
Off Dwárka	Gulf of Cutch	Sprung a leak. Heavy weather	Ditto	₹312 worth was lost.
Alongside the wharf in the Bassein river	Burma coast	Sprung a leak. Not known	One lost	Partially lost; value ₹4,000
Near the Kanaka buoy in the North channel, entrance to the Dhamrá river.	Orissa coast	Collision with the S.S. *Medina*. Carelessness of the master of the S.S. *Medina*.	None lost	None lost.
Ditto ditto	Ditto	Collision with the S.S. *Tyrone*. Carelessness of the master of the S.S. *Medina*.	Ditto	Ditto.
On shore at Takta khali, Jalchira river, mouth of the Megna.	Sunderbuns	Grounding. Stress of weather	Ditto	Ditto.
In the Bombay harbour	Bombay coast	Fire. Unavoidable	Ditto	Partially lost; value not reported.
On the bank a little above Nurpur point, and again on the bank abreast of the red Nun buoy below the creek at Fulta point.	Hooghly river	Grounding. Unavoidable	Ditto	None lost.
Off Bhagvádándi	Gulf of Cambay	Sprung a leak. Heavy weather.	Ditto	₹772 worth was lost.
Shulay pagoda wharf in the Rangoon river	Burma coast	Collision with the Shulay pagoda wharf. Unavoidable.	Ditto	None lost.
Abreast of Latter street wharf in the Rangoon river.	Ditto	Loss of anchor and chain. Carelessness of the assistant harbour master.	Ditto	Ditto.
On a rock off Dupani, Bombay harbour	Bombay coast	Foundering. Tides	Ditto	Totally lost.
Near the Ambika river	Ditto	Sprung a leak. Old and rotten	Ditto	₹100 worth was lost and ₹100 damaged.
Off Purangad	Ditto	Capsized. Heavy weather	Ditto	.....
On shore on the Puzundoung bar in the Rangoon river.	Burma coast	Grounding. Carelessness of the crew of the boat.	Ditto	.....
Off No. 6 Jetty in the Hooghly river	Hooghly river	Collision with the S.S. *Karamania*. Tides.	Ditto	None lost.
Ditto ditto	Ditto	Collision with the S.S. *Carmona*. Tides.	Ditto	Ditto.
Off Daneedau, between Messrs. Ainslie, Warren and Company's rice mills and the wreck buoy off the Pegu Saw mills in the Rangoon river.	Burma coast	Loss of anchor and chain. Defective chain.	Ditto	.....
On a lump off the King of Oudh's palace, Garden Reach; the Lower and Centre Bishop's college sand buoys being in one.	Hooghly river	Grounding. Unavoidable	Ditto	None lost.
Opposite the Port Office even in the Rangoon river.	Burma coast	Loss of anchor and chain. Unavoidable.	Ditto	Ditto.
On the sands at the South side of the entrance to the Sungoo river, about 2 miles off shore.	Chittagong coast	Grounding. Fogs	Ditto	Ditto.
Off the Commissariat wharf in the Rangoon river.	Burma coast	Collision with the barque *Norwester*. Carelessness of the crew of the boat.	Ditto	Ditto.
Ditto ditto	Ditto	Collision with the S.S. *Avagyee*. Carelessness of the crew of the boat.	Ditto	Ditto.
At Hajeera a mile to the West of the Tápti lighthouse.	Gulf of Cambay	Sprung a leak. Unavoidable	Ditto	₹1,772 worth was lost and ₹500 damaged.
Off Omar in the Tápti or Surat river	Ditto	Capsized. Tides	Ditto	₹272 worth was lost and ₹100 damaged.

Number.	Name of Vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
91	*Calcutta*	549	British screw steamer	23rd March	Rangoon	Calcutta	General; value not given.
92	*Kadery*	13	British Indian craft	25th do.	Harnai	Bombay	Paddy; value ₹344
93	*Eshwanty*	5	British Indian muchwa	Do. do.	Ratnagiri	Alibág	Jaggery, copra, &c.; value ₹567.
94	*Shah Alum*	71	British Indian craft	Do. do.	Verával	Bombay	Cotton; value ₹16,345
95	*Antonietta O.*	970	Italian barque	26th do.	Liverpool	Rangoon	Salt; value not given.
96	*Indra*	695	German barque	Do. do.	Hamburg	Ditto	Ditto ditto
97	*Colaba*	1,070	British screw steamer	27th do.	Rangoon	Bombay	Timber; value not stated.
98	*Ruparel*	18	Native padow	28th do.	Bhávnagar	Cambay	Wood and betnoben; value ₹188.
99	*Regent*	1,289	British ship	Do. do.	Rangoon	The Channel	2,000 tons rice; value not reported.
100	*Mahratta*	505	British screw steamer	Do. do.	Ditto	Calcutta	General; value not known.
101	*Pemba*	987	Ditto	Do. do.	Calcutta	The Straits	Ditto ditto
102	*Antonietta O.*	970	Italian barque	Do. do.	Liverpool	Rangoon	Salt; value not reported.
103	*Indra*	695	German barque	Do. do.	Hamburg	Ditto	Salt; value not given
104	*Damani*	5	British Indian craft	29th do.	Revdanda	Alibág	Firewood; value ₹132
105	*Zafiro*	675	British screw steamer	Do.	Aberdeen	Hong Kong	600 tons coals; value not stated.
106	*Nerbudda* (See Wrecks No. 12.)	1,948	Ditto	30th do.	Calcutta	Bombay	General; value not given.
107	*Ruparell*	9	British Indian padow	31st do.	Dántivra	Ditto	Firewood; value ₹160
108	*Suryaban*	7	British Indian mahangiri	Do. do.	Utan	Ditto	Grass; value ₹120.
109	*Paz*	290	British barque	1st April	Calcutta	Port Elizabeth	General; value not reported.
110	*Khengaty*	5	British Indian muchwa	2nd do.	Alibág	Bombay	Water melons; value ₹130.
111	*Marian King*	939	American barque	Do. do.	Chittagong	False Point	In ballast
112	*Suryaban*	9	British Indian craft	3rd do.	Trombay	Thána	Salt; value ₹680
113	*Daphne*	1,264	Austrian screw steamer	4th do.	Calcutta	Trieste	General; value not known.
114	*Sakri Salamati*	10	British Indian craft	6th do.	Thána	Bombay	Hay; value ₹120
115	*Celebes*	1,423	Dutch screw steamer	10th do.	Glasgow	Pulo Penang	General; value not reported.
116	*Africa*	1,620	German screw steamer	11th do.	Rangoon	Malta	2,725 tons rice; value not given.
117	*Speke Hall*	1,731	British screw steamer	13th do.	Liverpool	Calcutta	General; value not stated.
118	*Shahjehan*	1,036	Ditto	15th do.	Calcutta	Colombo	Ditto ditto
119	*Kingdom*	1,414	Ditto	17th do.	Bombay	Antwerp	Ditto ditto
120	*Sir William Armstrong*	1,474	Ditto	18th do.	Newcastle-on-Tyne.	Bombay	Coals and coke; value not given.
	Dadmai	101	Native battalla	22nd do.	Broach	Ditto	Cotton seeds, wheat, and mattra; value ₹2,279.

Waters during the year 1884—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
On the sands at the North end of Cheduba Straits; the North peak of Cheduba island bearing S ½ W., and the high land of Ramree island E ¾ S. (magnetic).	Burma coast	Grounding. Incorrect charts	None lost	None lost.
On the beach opposite the Custom house, in harbour of Harnai.	Bombay coast	Ditto. Stress of weather	Ditto	Ditto.
On the wreck of the ship *Divernon* near the Alibág fort, entrance to Bombay harbour..	Ditto	Ditto. Carelessness of the tindal	Ditto	Ditto.
On Rambara shoal in Verával harbour	Káthiáwár coast	Stranding. Currrents	Ditto	₹500 worth was lost and ₹500 damaged.
Above the Salt godowns in the Rangoon river	Burma coast	Collision with the barque *Indra*. Tides	Ditto	None lost.
Ditto ditto	Ditto	Collision with the barque *Antonietta O*. Tides.	Ditto	Ditto.
On the sands off Dalla, near the Saw mills, in the Rangoon river.	Ditto	Grounding. Unavoidable	Ditto	Ditto.
At the entrance to the port of Cambay	Gulf of Cambay	Ditto. Tides	Ditto	₹72 worth was lost.
Off the Municipal bazar in the Rangoon river.	Burma coast	Loss of anchor and chain. Unavoidable	Ditto	None lost.
Off the Brooking street wharf in the Rangoon river.	Ditto	Collision with the S.S. *Pemba*. Carelessness of the assistant harbour master	Ditto	Ditto.
Ditto ditto	Ditto	Collision with the S.S. *Mahratta*. Carelessness of the assistant harbour master	Ditto	Ditto.
Above the Salt godowns in the Rangoon river.	Ditto	Collision with the barque *Indra*. Tides	Ditto	Ditto.
Ditto ditto	Ditto	Collision with the barque *Antonietta O*. Tides.	Ditto	Ditto.
On the rocks to the North of Korlai fort, at the entrance to the Revdanda river.	Bombay coast	Grounding. Stress of weather	Ditto	Totally lost.
220 miles eastward of Aden, in latitude 12° 03′ N., longitude 47° 54′ E.	Gulf of Aden	Damage to engines. Not reported	Ditto	None lost.
Off Chowghât or Palm river, about 17 miles S.E. of Ponáni port, in latitude 10° 31′ N., longitude 75° 55′ E.	Malabár coast.	Collision with the barque *Asie Mineure*. Carelessness of the second officer of the S.S. *Nerbudda*.	Ditto	Ditto.
Near the railway bridge at Wadiw, in the Dántivra creek.	Bombay coast	Sprung a leak. Heavy weather	Ditto	Totally lost.
Off Vesáva	Ditto	Capsized. Stress of weather	Ditto	Ditto.
On the Dingywallah's flat, opposite Kaffray point.	Hooghly river	Grounding. Unavoidable	Ditto	Partially damaged; value not known.
Near a rock to the South of Kolába fort, entrance to Bombay harbour.	Bombay coast	Foundering. Stress of weather	Ditto	Totally lost.
On the bank off the Gupta khali crossing, S.E. of Lukhia in the Kornafuli river.	Chittagong coast	Grounding. Carelessness of the master	Ditto	.....
Near the fishing stakes at Mahapur in the Pawai creek, Bombay harbour.	Bombay coast	Capsized. Stress of weather	Ditto	Totally lost.
On the Moyapur flats; the Fairway marks exactly on with the Devil's point mark bearing E.S.E., distant about 600 yards, and the red Nun buoy S.¾E. distant 300 yards.	Hooghly river	Grounding. Unavoidable	Ditto	None lost.
At Ghansoly in the Bombay harbour	Bombay coast	Capsized. Stress of weather	Ditto	Totally lost.
Off the Farisan islands in latitude 16° 40′ N., longitude 40° 48′ E.	Red sea	Damage to engines. Not reported	Ditto	None lost.
On the Ahlón sands in the Rangoon river	Burma coast	Grounding. Tides	Ditto	Ditto.
On the bank in the Hooghly bight just above the Puppies parlour; the Hooghly point semaphore bearing N.N.W., Gewankhali temple W.N.W., and Luff point E.N.E.	Hooghly river	Ditto. Unavoidable	Ditto	Partially damaged; value not known.
On the flat below Fisherman's point	Ditto	Ditto ditto	Ditto	None lost.
Inner or western end of the centre pier, entrance to Prince's dock, Bombay harbour.	Bombay coast	Collision with the Prince's dock. Carelessness of the engineer.	Ditto	Ditto.
On the sands at the North end of Perim island, Small Straits.	Red sea	Stranding. Carelessness of the master	Ditto	Partially damaged; value ₹396.
At the mouth of the Bhagta creek near Tárápur.	Bombay coast	Sprung a leak. Heavy weather	Ditto	₹542 worth was lost.

Number.	Name of Vessel.	Tonnage.	Flag and rig of vessel.	Dtae of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
122	*County of Inverness*	1,636	British ship	22nd April	Bombay	Calcutta	2,000 tons Bombay stone; value ₹6,000.
123	*St. Gothard*	1,046	British screw steamer	24th do.	Bushire	London	2,000 tons wheat; value ₹2,86,000.
124	*City of Edinburgh*	2,092	Ditto	25th do.	Glasgow	Calcutta	General; value not given.
125	*Henzada*	1,344	Ditto	Do. do.	Calcutta	The Straits	Ditto ditto
126	*Nuddea*	1,940	Ditto	26th do.	Ditto	Bombay	Ditto ditto
127	*Gogra*	400	British flat	Do. do.	Lying	empty at Garden	Reach
128	*Laleham*	1,299	British screw steamer	27th do.	Calcutta	Surinam	584 emigrants and a cargo of rice and dhál; value ₹1,00,000.
129	*Albano*	1,522	Ditto	Do. do.	Middlesborough	Calcutta	General; value not reported.
130	*Professor*	1,697	Ditto	28th do.	Calcutta	Liverpool	Ditto ditto
131	*Ramprasad*	54	British Indian padow	1st May	Surat	Bombay	Cotton seeds, toor, &c.; value ₹1,895.
32	*Sagalpásá*	12	Native craft	Do. do.	Broach	Porbandar	Cotton seeds; value not known.
133	*Washi*	265	Malayan steamer	Do. do.	Pulo Penang	Renoung and Maulmain.	General; value not given.
134	*Calcutta*	549	British screw steamer	Do. do.	Calcutta	Chittagong	Ditto ditto
135	*Labsawai*	25	Native padow	5th do.	Bombay	Cambay	Kerosine oil, iron, cloth &c.; value ₹4,785.
136	*Zephyr*	82	British schooner	11th do.	Employed on Pilot duties in		Bombay harbour
137	*Vijlipersad*	62	British Indian battalla	Do. do.	Bombay	Bulsár	In ballast
138	*Sibmani*	10	British Indian muchwa	13th do.	Katekhar	Rájápur	Salt; value ₹ 790
139	*Insee*	85	British Burman schooner	Do. do.	Port Blair	Maulmain	Copra; value ₹13,125
140	*Oung Chantha*	115	Ditto	Do. do.	Ditto	Ditto	Copra and cocoanuts; value ₹4,075.
141	*Helena*	209	Swedish schooner	14th do	Calcutta	Port Natal	General; value not stated.
142	*Alexandra*	363	British paddle steamer	Do. do.	Employed as	a tug steamer in	the Hooghly river
143	*Hannibal*	1,204	British ship	15th do.	Calcutta	London	Seeds; value £17,000
144	*Ruparel*	7	British Indian padow	16th do.	Surat	Bhávnagar	Firewood; value ₹148
145	*Purulia*	993	British screw steamer	Do. do.	Rangoon	Calcutta	365 passengers and a general cargo; value not given.
146	*Valiant*	1,625	British Indian ship	17th do.	Calcutta	New York	2,656 tons of Hides, pepper and salt; value not stated.
147	*Fiji*	1,357	British ship	Do. do.	Ditto	Akyab	In sand ballast
148	*Rattler*	56	British Indian schooner	Do. do.	Akyab	Chittagong	Ditto ditto
149	*Loch Linnhe*	1,382	British ship	Do. do.	Ditto	The Channel	Rice; value not given

Waters during the year 1884—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
On the bank off Shalimar point, Garden reach	Hooghly river	Grounding. Heavy weather	None lost	None lost.
On the sands off the western point of Kais island.	Persian Gulf	Ditto. Carelessness of the master	Ditto	Ditto.
In latitude 9° 21′ N., longitude 65° 43′ E.	Arabian sea	Damage to engines. Unavoidable	Ditto	Partially damaged; value ₹46,495.
In the Dredge channel nearly in mid-stream	Hooghly river	Grounding. Unavoidable	Ditto	None lost.
Abreast of No. 3 Matea-bruj ghât moorings, Garden reach.	Ditto	Collision with the flat *Gogra*. Carelessness of the master of the flat.	Ditto	Ditto.
Ditto ditto	Ditto	Collision with the S.S. *Nuddea*. Carelessness of the master of the flat *Gogra*.	Ditto	.....
On the rocks off Elephant point, about 22 miles North of Batticaloa, East coast of Ceylon.	Ceylon coast	Stranding. Carelessness of the master	One lost	Partially lost; value ₹15,000.
On the bank in the Hooghly bight, just above the Puppies parlour.	Hooghly river	Grounding. Eddy tide	None lost	None lost.
On the bank, a little below the Crossing mark off Melancholy point.	Ditto	Ditto ditto	Ditto	Ditto.
Near a sand bank off Omar in the Tápti or Surat river.	Gulf of Cambay	Foundering. Carelessness of the tindal	Ditto	₹400 worth was lost and ₹1,000 damaged.
On the reefs near the Goapnath lighthouse, and about 7 miles distant from the Talája bandar.	Ditto	Grounding. Carelessness of the tindal	Ditto	₹110 worth was lost.
Off White point in latitude 14° 47′ N., longitude 97° 35′ E.	Burma coast	Damage to engines. Unavoidable	Ditto	None lost.
On the Nynan lumps with marks on westward; the Fulta point tree bearing N. 18° E., the Hooghly point S. by W., and the Shipganj point S.W. ½ S. (magnetic).	Hooghly river	Grounding. Unavoidable	Ditto	Ditto.
Off Gangwa	Gulf of Cambay	Sprung a leak. Carelessness of the tindal.	Ditto	₹1,426 worth was lost and ₹1,200 damaged.
One mile S.W. of the Outer lightship at the entrance to Bombay harbour.	Bombay coast	Collision with the battalla *Vijlipersad*. Carelessness of the tindal of the battalla.	Ditto	.....
Ditto ditto	Ditto	Collision with the schooner *Zephyr*. Carelessness of the tindal of the battalla.	Ditto	.....
At Agar-Sandooki-Suza in the Katekhar creek, Bombay harbour.	Ditto	Sprung a leak. Carelessness of the tindal.	Ditto	₹110 worth was lost and ₹100 damaged.
At Car Nicobar island	Nicobars	Collision with the schooner *Oung Chantha*. Heavy weather.	Ditto	None lost.
Ditto	Ditto	Collision with the schooner *Insee*. Heavy weather.	Ditto	Ditto.
Abreast of the jetty at Messrs. Gladstone, Wyllie's yard, Garden reach.	Hooghly river	Collision with the tug-steamer *Alexandra*. Unavoidable.	Ditto	Ditto.
Ditto ditto	Ditto	Collision with the schooner *Helena*. Unavoidable.	Ditto	.....
In latitude 11° 57′ N., longitude 89° 31′ E	Bay of Bengal	Damage to hull. Cyclone	Ditto	Partially lost; value ₹35,000.
Off the Kalai creek, near Bhagvádándi	Gulf of Cambay	Sprung a leak. Bad stowage of cargo	Ditto	Partially lost; value ₹32.
In the Gulf of Martaban (exact position not given).	Burma coast	Slight casualty. Cyclone	One lost	None lost.
In latitude 12° 05′ N., longitude 88° 45′ E.	Bay of Bengal	Sprung a leak. Cyclone	None lost	Partially lost; value ₹5,672.
On the beach between Fisherman's creek and Cheroonghea khal, in the Akyab or Arakan river.	Burma coast	Grounding. Cyclone	Ditto	Partially lost; value ₹625.
On the Sandy point, opposite the Post Office in the Kyouk Phyou harbour.	Ditto	Ditto ditto	Ditto	.....
On the beach between Fisherman's creek and the Cheroonghea khal, in the Akyab or Arakan river.	Ditto	Ditto ditto	Ditto	Partially lost; value ₹700.

Number.	Name of Vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
150	*Madras*	462	British screw steamer	17th May	Rangoon	Calcutta	711 passengers and a cargo of cutch and rice in bags; value not stated.
151	*Zenobia*	1,099	British barque	Do. do.	Vizagapatam	The United Kingdom.	Jaggery and redwood; value ₹20,000.
152	*Ellerslie*	1,346	British ship	Do. do.	Ditto	London, *viâ* Bimlipatam.	Ditto ditto
153	*Rossini*	1,004	German barque	Do. do.	Akyab	Falmouth	Rice; value ₹45,600.
154	*Rajpootana*	1,312	British screw steamer	Do. do.	Calcutta	Bombay *viâ* Burman and Indian coast ports.	General; value not stated.
155	*Arrow*	130	British Indian steamer	18th do.	Bhávnagar	Bombay	Cotton; value ₹30,000
156	*Japan*	1,865	British screw steamer	20th do.	Calcutta	Hong-Kong *viâ* The Straits.	Opium and a general cargo; value not given
157	*Coleroon*	346	British brig	Do. do.	Employed on Pilot duties at the Sandheads		
158	*Star of Italy*	1,570	British ship	Do. do.	London	Calcutta	2,200 tons, general; value not reported.
159	*Jairam Prasad*	22	Native kotia	21st do.	Surat	Jabee	Cotton seeds; value ₹573.
160	*Europa*	1,347	German screw steamer	Do. do.	Colombo	Calcutta	In water ballast
61	*Gryfe*	1,069	British ship	22nd do.	Mauritius	Ditto	In ballast
162	*Traveller*	1,420	Ditto	25th do.	Liverpool	Ditto	2,095 tons salt; value £2,810.
163	*Challenge*	257	British steamer	Do. do.	Employed as a steam-tug in the Hooghly river		
164	*Gateacre*	1,355	British ship	27th do.	Calcutta	London	Jute; value not known
165	*Bhawani*	12	British Indian hodi	Do. do.	Karanja	Vesâva	Paddy; valued ₹752
166	*Surrey*	1,939	British screw steamer	28th do.	Bassein (Burma).	Malta	Rice; value not reported.
167	*Maid of Aln*	497	British barque	Do. do.	Chittagong	Trinidad	52 tons rice; value not stated.
168	*Waverley*	2,022	British screw steamer	30th do.	Bombay	Liverpool	General; value not given.
169	*Malda*	1,269	Ditto	31st do.	Rangoon	Calcutta	Ditto ditto
170	*Luxmi*	7	British Indian muchwa	Do. do.	Durshet	Bombay	Firewood; value ₹148
171	*Lord Derby*	1,132	British screw steamer	1st June	Vizagapatam	The United Kingdom.	1,100 tons jaggery; value not known.
172	*Genista*	1,799	British ship	3rd do.	Calcutta	London	General; value not given.
173	*Mecca*	937	British screw steamer	4th do.	Bombay	Zanzibar	Ditto ditto
174	*Sirdhana*	2,040	Ditto.	Do. do.	Calcutta	Bombay	Ditto ditto
175	*Clan Macintosh*	2,635	Ditto	8th do.	Ditto	Madras	Ditto ditto
176	*Oakfield*	1,123	Ditto	11th do.	Point de Galle	Port Said	2,200 tons rice; value not stated.
177	*Calcutta*	549	Ditto	Do. do.	Rangoon	Calcutta	480 passengers and a general cargo; value not given.

Waters during the year 1884—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
Off the Krishna shoal, in the Gulf of Martaban	Burma coast	Sprung a leak. Cyclone	None lost	Partially lost; value ₹3,600.
In the Outer roadstead at Vizagapatam	Madras coast	Collision with the ship *Ellerslie*. Stress of weather.	One lost	None lost.
Ditto ditto	Ditto	Collision with the barque *Zenobia*. Stress of weather.	None lost	Ditto.
On the beach between Fisherman's creek and the Cheroonghea khal, in the Akyab or Arakan river.	Burma coast	Grounding. Cyclone	Ditto	Ditto.
In latitude 19° 23′ N., longitude 89° 47′ E.	Bay of Bengal	Slight casualty. Cyclone	Ditto	Ditto.
Off Bulsár	Bombay coast	Sprung a leak. Unavoidable	Ditto	Partially lost; value ₹4,473.
About 16 miles S.W ½W. of Narcondam island.	Andamans	Damage to engines. Not reported	Ditto	None lost.
5 miles to the E.S.E. of the Eastern Channel lightship.	Sandheads	Collision with the ship *Star of Italy*. Carelessness of the master of the *Star of Italy*.	Ditto	.....
Ditto ditto	Ditto	Collision with the brig *Coleroon*. Carelessness of the master of the ship *Star of Italy*.	Ditto	None lost.
On a sand bank near Magadalla in the Tápti or Surat river.	Gulf of Cambay	Grounding. Unavoidable	Ditto	Ditto.
Abreast of the coal depôt at Kidderpur and about 450 feet outside the buoy.	Hooghly river	Loss of anchor and chain. Unavoidable.	Ditto	.....
On the upper edge of the Diamond sands; the Diamond Harbour old Custom house bearing N.E., and the Buffalo point W.N.W.	Ditto	Grounding. Unavoidable	Ditto	.....
At Fulta point	Ditto	Collision with the steam-tug *Challenge*. Unavoidable.	Ditto	None lost.
Ditto	Ditto	Collision with the ship *Traveller*. Unavoidable.	Ditto	.....
On the mud bank, below Messrs. Gladstone, Wyllie's premises at Garden reach.	Ditto	Grounding. Unavoidable	Ditto	None lost.
Off the village of Yerangal	Bombay coast	Sprung a leak. Heavy seas	Ditto	Totally lost.
Off Haingyee or Negrais island, entrance to the Bassein river.	Burma coast	Loss of anchor and chain. Unavoidable.	Ditto	None lost.
On the Juldia bar off the flagstaff, in the Kornafuli river.	Chittagong coast	Grounding. Carelessness of the pilot.	Ditto	Ditto.
On the northern side of the centre pier of the Prince's dock in Bombay harbour.	Bombay coast	Collision with the Prince's dock. Carelessness of the pilot.	Ditto	Ditto.
On the bank at Hooghly point.	Hooghly river	Grounding. Unavoidable	Ditto	Ditto.
Near the Kolhew rock off the Karanja bandar in the Bombay harbour.	Bombay coast	Foundering. Carelessness of the tindal	Ditto	Totally lost.
In the Cocanada roadstead in 5 fathoms of water; the Vakalapudi lighthouse bearing N.W.by W., and the Cocanada old lighthouse S.W.½W.	Madras coast	Damage to engines. Unknown	Ditto	Partially damaged; value £100.
Abreast of the Nynan creek	Hooghly river	Loss of anchor and chain. Unavoidable.	Ditto	None lost.
About 43 miles eastward of Aden, in latitude 12° 40′ N., longitude 45° 47′ E.	Gulf of Aden	Damage to engines. Unavoidable	Ditto	Ditto.
On the bank abreast of the red Nun buoy in the Jar-maker's reach.	Hooghly river	Grounding. Unavoidable.	Ditto	Ditto.
On a mud bank nearly abreast of the Ennore shoals, in latitude 13° 18′ 0″ N., longitude 80° 25′ 30″ E.	Coromandel coast	Ditto. Incorrect charts	Ditto	Ditto.
In latitude 7° 30′ N., longitude 56° 0′ E.	Arabian sea	Damage to engines. Not reported	Ditto	Ditto.
Near the Ring buoy, just below Messrs. Bulloch Brothers' rice godown in the Kornafuli river.	Chittagong coast	Collision with the barque *Angèle*. Carelessness of the master of the S.S. *Calcutta*.	Ditto	Ditto.

Number.	Name of Vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
178	*Angéle*	393	French barque	11th June	Mayotta	Chittagong	In sand ballast
179	*Hannibal*	1,204	British ship	14th do.	Calcutta	London	Seeds; value £17,000
180	*Assyrian*	1,121	Ditto	15th do.	New York	Calcutta	Kerosine oil; value not reported
181	Name unknown	Not reported	British Indian muchwa	17th do.	Révas	Bombay	In ballast
182	*Joseph Ferrens*	1,289	British screw steamer	18th do.	Madras	London	2,200 tons general; value not known.
183	*Meerapur*	22	British Indian dingy	20th do.	Keti bandar	Kurrachee	Barley and gunny bags; value ₹300.
184	*Laxmee*	Not reported	British Indian muchwa	21st do.	Revas	Seaward	Fishing nets; value not stated.
185	*Atholl*	923	British screw steamer	Do. do.	Calcutta	Hong Kong *vid* The Straits.	Opium and a general cargo; value not given.
186	*Mahomed Mohideen Lethemy.*	9	British Indian dhoney	22nd do.	Pámban	Muntapun	Coral lime; value ₹135.
187	*Raffaele Rubattino*	Not reported	Italian steam launch	Do. do.	Lying in the Bombay harbour.		
188	*Mola Bux*	74	British Indian sloop	23rd do.	Narainganj	Chittagong	Rice, gram, jute, &c.; value ₹6,325.
189	*Victorine*	298	British barque	Do. do.	Mauritius	Bombay	Sugar; value not known
190	*Serendib*	256	Colonial schooner	24th do.	Jaffna	Colombo	General; value not reported.
191	*Allanshaw*	1,589	British ship	Do. do	Liverpool	Calcutta	Salt; value not stated.
192	*Laxmi*	5	British Indian muchwa	25th do.	Bombay	Basseen	In ballast
193	*Glenfruin*	1,936	British screw steamer	3rd July	Hankow	London	4,300 tons of tea; value £158,000.
194	*Karamania*	2,045	Ditto	Do. do.	Liverpool	Calcutta	General; value not given.
195	*Khedive*	394	British barque	11th do.	Bassein (Burma)	Rouén and Havre.	556 tons rice; value ₹33,408.
196	*Cilaos*	538	French barque	12th do.	Calcutta	Bourbon	General; value not known.
197	*Emanuel*	92	Cingalese schooner	15th do.	Colombo	Tuticorin	In ballast
198	*Aramvalartha Ammay*	115	British Indian schooner	Do. do.	Tuticorin	Colombo	Chillies, onions, oil-cakes, &c.; value not reported.
199	*Edinburgh*	1,299	American barque	Do. do.	Calcutta	New York	Jute seeds; value not given.
200	*Clan Ranald*	1,338	British screw steamer	17th do.	Pondicherry	Marseilles, *vid* Point de Galle.	Ground-nuts; and gingelly seeds; value not stated.
201	*Claymore*	1,657	Ditto	18th do.	Singapore	New York	1,500 tons tea; value not known.
202	*Inchrhona*	1,496	Ditto	19th do.	Kurrachee	Port Said	General; value unknown
203	*Simla*	1,039	Ditto	Do. do.	Ditto	Bombay	Ditto ditto.
204	*Empress of India*	1,390	Ditto	Do. do.	Calcutta	Colombo	Rice; value not given.
205	*Africa*	1,318	Ditto	23rd do.	Ditto	The Straits *vid* Rangoon and Maulmain.	General; value not stated.
206	*Abyssinia*	718	Ditto	Do. do.	Bombay	Mozambique	Ditto ditto

Waters during the year 1884—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
Opposite Sareatulah's godowns in the Kornafuli river.	Chittagong coast	Collision with the S.S. *Calcutta*. Carelessness of the master of the steamer.	None lost	.....
In Saugor roadstead	Hooghly river	Collision with the steam-tug *Clive*. Tides.	Ditto	Partially damaged; value not known.
On the flat above Hooghly point	Ditto	Grounding. Unavoidable	Ditto	None lost.
2 miles South of the Middle Ground, Bombay harbour.	Bombay coast	Capsized. Heavy weather	Ditto	.....
120 miles to the westward of Cape Guardafui, in latitude 11° 53′ N., longitude 49° 02′ E.	Gulf of Aden	Fire. Insufficient coals	Ditto	Partially lost; value ₹2,400.
At Raw-warro-Koond, near the Patani mouth of the river Indus.	Sind coast	Grounding. Haze	Ditto	Totally lost.
Between the Outer lightship and the Prong's lighthouse, entrance to Bombay harbour.	Bombay coast	Capsized. Heavy weather	Ditto	None lost.
In the Bellary channel, about one-third the breadth of the channel from the western bank; the Lower Eastern Bellary buoy bearing E. by S. ½ S., and the Haldia tripod S.W.¾ S., distant half a mile.	Hooghly river	Grounding. Unavoidable	Ditto	Ditto.
In the port of Muntapun, in 2 fathoms of water.	Gulf of Manár	Capsized. Overladen	Ditto	Totally lost.
About 20 feet from the Apollo bandar wall, Bombay harbour.	Bombay coast	Grounding. Unavoidable	Ditto	.....
On a sand bank off Forashganj in the Mandiar khal, Megna river.	Sunderbuns	Sprung a leak. Carelessness of the tindal.	Ditto	₹1,745 worth was lost.
South of the Cross island reefs in the Bombay harbour.	Bombay coast	Collision with a padow (name unknown). Unavoidable.	Ditto	None lost.
In the Reef channel, Pámban Pass	Gulf of Manár	Grounding. Unavoidable	Ditto	Ditto.
On the head of the Hooghly sands, about a ship's length from the channel.	Hooghly river	Ditto. Carelessness of the pilot	Ditto	Ditto.
Off the Dongarsan hills in the Basseen creek.	Bombay coast	Foundering. Stress of weather	Ditto	.....
About 360 miles N.W. of Suadiva Atoll, in latitude 1° 41′ N., longitude 66° 34′ E.	Indian ocean	Damage to engines. Not reported	Ditto	Partially damaged; value not reported.
Abreast of the Roychak trees	Hooghly river	Loss of anchor and chain. Unavoidable	Ditto	None lost.
To the eastward of the South Andaman island, in latitude 11° 50′ N., longitude 92° 55′ E.	Andamans	Loss of masts, &c. Heavy weather	Ditto	Partially lost; value not known.
On the Moyapur flat, above Hiraganj point	Hooghly river	Grounding. Unavoidable	Ditto	Ditto ditto.
In the Inner harbour of Tuticorin	Gulf of Manár	Collision with the schooner *Aramvalartha Ammay*. Unavoidable.	Ditto	.....
Ditto ditto	Ditto	Collision with the schooner *Emanuel*. Unavoidable.	Ditto	None lost.
At Fisherman's point in 7¼ fathoms of water; the *Queen Anne* wreck buoy bearing N. W. by N. ½ N., and the Upper Fulta mark E ½ S.	Hooghly river	Loss of anchor and chain. Unavoidable	Ditto	Ditto.
80 miles westward of Cape Comorin, in latitude 7° 49′ N., longitude 76° 01′ E.	Indian ocean	Damage to engines. Heavy weather.	Ditto	Ditto.
In latitude 3° 22′ N., longitude 90° 04′ E	Ditto	Ditto ditto	Ditto	Ditto.
In the Kurrachee harbour	Sind coast	Collision with the S.S. *Simla*. Unavoidable.	Ditto	Ditto.
Ditto	Ditto	Collision with the S.S. *Inchrhona*. Unavoidable.	Ditto	Ditto.
On the South, or left, bank of the river, a little below Messrs. Gladstone, Wylie's yard, Garden reach.	Hooghly river	Grounding. Carelessness of the pilot	Ditto	Ditto.
On the northern bank at Garden reach, a little below the Garden house point.	Ditto	Ditto. Unavoidable	Ditto	Ditto.
In latitude 15° N., longitude 57° E.	Arabian sea	Damage to hull. Heavy weather	Ditto	Partially damaged; value not reported.

Number.	Name of Vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
207	*Vesta*	1,995	British screw steamer	24th July	Calcutta	London	General; value not stated.
208	*Clan Ranald*	1,338	Ditto	Do. do.	Pondicherry	Marseilles, *viâ* Point de Galle.	Ground-nuts and gingelly seeds; value not reported.
209	*Atrato*	2,066	Ditto	Do. do.	Cardiff	Aden and Bombay.	Coals; value unknown
210	*Tongoy*	484	British barque	Do. do.	Madras	Calcutta	In stone ballast
211	*Laxmi*	5	British Indian muchwa	25th do.	Bombay	Basseen	Ditto
212	*Africa*	1,318	British screw steamer	Do. do.	Calcutta	The Straits *viâ* Rangoon and Maulmain.	General; value not given
213	*Clan Ranald*	1,338	Ditto	26th do.	Pondicherry	Marseilles *viâ* Point de Galle.	Ground-nuts and gingelly seeds; value not reported.
214	*Atrato*	2,066	Ditto	29th do.	Cardiff and Aden	Bombay	Coals; value not given
215	*Sir John Lawrence*	466	British paddle steamer	30th do.	Calcutta	Chándbali	213 passengers and a general cargo; value not known.
216	*James Watt*	1,024	British screw steamer	2nd August	Maulmain	The Channel	Teak timber; value not stated.
217	*Bengollyan*	1,139	British ship	Do. do.	Newcastle (Australia).	Tuticorin	1,500 tons coals; value not given.
218	*Mairi Bhan*	1,315	Ditto	Do. do.	Melbourne	Calcutta	Horses; value not reported.
219	*Hunsdon*	440	British paddle steamer	Do. do.	Towing	the ship *Mairi Bhan.*	
220	*Swordsman*	720	African screw steamer	4th do.	Calcutta	Zanzibar	Rice; value not given
221	*Bedouin*	1,276	British screw steamer	5th do.	Bombay	Havre	2,600 tons, general; value not known.
222	*Cæsarea*	1,257	British ship	9th do.	New York	Calcutta	Kerosine oil; value not stated.
223	*City of Oxford*	2,573	British screw steamer	13th do.	Calcutta	London	General; value not given.
224	*Monarch*	1,187	American ship	Do. do.	New York	Calcutta	Kerosine oil and piece-goods; value not known.
225	*Viceroy*	1,570	British screw steamer	15th do.	Bombay	Hull	2,899 tons, general; value not stated.
226	*Salamati*	6	British Indian craft	16th do.	Adá	Bombay	In sand ballast
227	*Aubrey Peake*	262	British brigantine	18th do.	Port Natal	Calcutta	Ditto
228	*Mira*	1,669	British screw steamer	Do. do.	Calcutta	London *viâ* Colombo	General; value not reported.
229	*Glenlui*	1,847	British ship	Do. do.	Ditto	Liverpool	Ditto
230	*Aubrey Peake*	262	British brigantine	Do. do.	Port Natal	Calcutta	In sand ballast
231	*Glenlui*	1,847	British ship	19th do.	Calcutta	Liverpool	General value not given
232	*Muthooletchimy*	24	British Indian schooner	20th do.	Karikal	Batticaloa	Rice; value not stated
233	*Sákhari Sallámati*	11	British Indian craft	21st do.	Harnai	Anjarla	In ballast
234	*Chindwara*	1,487	British screw steamer	23rd do.	Calcutta	Bombay *viâ* coast ports.	General; value not reported.

Waters during the year 1884—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
On the Melancholy sands	Hooghly river . .	Grounding. Unavoidable . . .	None lost .	None lost.
About 80 miles to the S.E. of Sokotra island, in latitude 12° 01′ N., longitude 55° 15′ E.	Arabian sea . .	Damage to engines. Heavy weather .	Ditto .	Ditto.
In the Outer harbour of Aden, and again on the mud bank in the Inner harbour.	South coast of Arabia	Grounding. Carelessness of the master	Ditto .	Ditto.
On the bank just below the mouth of the Sisbaria creek.	Hooghly river .	Ditto. Unavoidable . . .	Ditto .	.....
Near the Dongarsan hills in the Basseen river.	Bombay coast .	Sprung a leak. Stress of weather .	Ditto .	.....
At Fisherman's point; the Fisherman's point creek bearing N.E.¾ N., old Fulta point S. by W.¼W., and the *Queen Anne* wreck buoy South (true).	Hooghly river .	Loss of anchor and chain. Defective chain cable.	Ditto .	None lost.
About 90 miles to the N.W. of Sokotra island, in latitude 13° 35′ N., longitude 52° 44′ E.	Arabian sea . .	Damage to engines. Heavy weather .	Ditto .	Ditto.
About 700 miles eastward of Aden, in latitude 15° 05′ N., longitude 56° 45′ E.	Ditto. . .	Damage to engines. Carelessness of the engineer.	Ditto .	Ditto.
Off the Engine-house moorings . . .	Hooghly river .	Collision with a boat. Carelessness of the crew of the boat.	Ditto .	Ditto.
On the Sirocco lumps, about a cable's length S.E. of the buoy in the Mopoon bight, Salween or Maulmain river.	Burma coast . .	Grounding. Carelessness of the pilot.	Ditto .	Ditto
On the shoals 23 miles South of the port of Tuticorin; the Trichendore pagoda bearing N.N.E., distant 8 miles and Manapaud Church W.by S ½ S., distant 2 miles.	Gulf of Manár .	Ditto. Carelessness of the master	Ditto .	Ditto.
At Kedgeree	Hooghly river	Collision with the tug *Hunsdon*. Unavoidable.	Ditto .	Ditto.
Ditto	Ditto	Collision with the ship *Mairi Bhan*. Unavoidable.	Ditto .	Ditto.
Just below the Sankral bazar . . .	Ditto .	Collision with a boat. Carelessness of the crew of the boat.	Ditto .	Ditto.
About 600 miles from Aden in latitude 15° 36′ N., longitude 55° 22′ E.	Arabian sea . .	Damage to engines. Stress of weather	Ditto .	Ditto.
On the bank a little outside the ebb-buoy at No. 1 Garden reach moorings.	Hooghly river . .	Grounding. Unavoidable . . .	Ditto .	Ditto.
In about mid-channel, 200 yards below Pir Serang's tomb.	Ditto . .	Ditto. ditto . . .	Ditto .	Ditto.
On the flat, about half a mile above the North boundary pillar of the port, Garden reach.	Ditto . .	Grounding. Carelessness of the pilot .	Ditto .	Partially lost; value ₹2,362.
50 miles S.W. of Aden, in latitude 12° 28′ N., longitude 44° 14′ E.	Gulf of Aden . .	Damage to engines. Stress of weather	Ditto .	None lost.
On a sand bank at the entrance to the Adá creek, Bombay harbour.	Bombay coast .	Grounding. Stress of weather . .	Dito .	.....
Close to the edge of the sand, just below Melancholy point.	Hooghly river . .	Loss of anchor and chain. Unavoidable	Ditto .	.....
In the Auckland channel, halfway between the Lower Western Auckland and the Upper Eastern Eden buoys.	Ditto . .	Grounding. Unavoidable . . .	Ditto .	None lost.
Just below Melancholy point . . .	Ditto .	Collision with the brigantine *Aubrey Peake*. Unavoidable.	Ditto .	Ditto.
Ditto	Ditto .	Collision with the ship *Glenlui*. Unavoidable.	Ditto .	.....
At Diamond harbour in 10 fathoms of water; the Magistrate's house a little open with the mooring, and the Custom house bearing N.W.	Ditto . .	Loss of anchor and chain. Defective chain cable.	Ditto .	None lost.
In the Negapatam roadstead, in 4 fathoms of water.	Coromandel coast .	Collision with the dhoney *Madavinpurovy*. Carelessness of the tindal of the dhoney.	Ditto .	Ditto.
On the rocks off Siri bandar . . .	Bombay coast .	Grounding. Heavy weather . .	One lost .	.....
On the bank at Túmluk or Gewán khali point, midway between the Fairway and the No. 2 marks.	Hooghly river .	Ditto Unavoidable . .	None lost .	None lost.

Number.	Name of Vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
235	*Roumania* .	2,207	British screw steamer .	24th August .	Calcutta . .	London . .	General; value not reported.
236	*Virgin Maria Joseph St. Anna.*	82	British Indian schooner .	25th do. .	Colombo . .	Tuticorin . .	Betel-nuts, piece-goods and gunnies; value ₹8,000.
237	*Faleri Sakhri* . .	5	British Indian hodi .	26th do. .	Alibág . .	Bombay . .	Teak timber; value ₹35.
238	*Chanda* . . .	1,305	British screw steamer .	28th do. .	Bombay . .	Calcutta *viâ* coast ports.	General; value not given.
239	*Soogarpersad* . .	66	Native ganja . .	29th do. .	Jodiya . .	Calicut . .	Gram; value ₹1,100.
240	*Africa* . . .	1,318	British screw steamer .	30th do. .	Rangoon . .	Calcutta . .	General; value not reported.
241	*Baron Colonsay* . .	1,632	British ship . . .	Do. do. .	Liverpool . .	Ditto . .	Salt; value not stated.
242	*Joseph* . . .	1,542	American ship . .	Do. do. .	Southampton .	Ditto . .	Coals; value not given.
243	*Port Gordon* . .	1,098	British barque . .	Do. do. .	Calcutta . .	Australia . .	General; value not reported.
244	*Hurri Pussa* . .	45	Native ganja . .	Do. do. .	Calicut . .	Bombay . .	Cocoanuts; value ₹100.
245	*Tricum Pussa* . .	42	Native battalla . .	Do. do. .	Cutch Mándvi .	Calicut . .	In ballast . . .
246	*British Nation* ,	1,302	British ship . . .	1st September	Calcutta . .	Surinam and Demerara.	473 Native emigrants and a cargo of 1,032 tons rice; value ₹82,000.
247	*Monarch* . .	1,187	American ship . .	Do. do, .	New York .	Calcutta . .	Kerosine oil and piece-goods; value not known.
248	*Giava* . . .	2,045	Italian screw steamer .	Do. do. .	Calcutta . .	Genoa . .	General; value not stated.
249	*Defiance* . .	222	British paddle steamer .	5th do. .	Towing	the ship *Turseena*	
250	*Turseena* . .	816	Arabian ship . .	Do. do. .	Linjah . .	Calcutta . .	Rock salt; value ₹8,500.
251	*Hariprasad* . .	18	British Indian padow .	7th do. .	Kelmi . .	Broach . .	Fruit; value ₹450 .
252	*Chanda* . .	1,305	British screw steamer .	Do. do. .	Calcutta . .	Bombay *viâ* coast ports.	General; value not reported.
253	*Blair Drummond*	1,450	British ship . . .	Do. do. .	Ditto . .	Dundee . .	2,148 tons jute; value not stated.
254	*Harakhsavai* . .	53	British Indian padow .	8th do. .	Broach . .	Calicut . .	Pulse, cotton yarn, and kharoi cloth; value ₹13,925.
255	*Labsawai* . . .	29	Ditto . . .	Do. do. .	Ditto . .	Bilimora . .	Firewood and salt fish; value ₹200.
256	*Princeport* . .	1,214	British ship . . .	10th do. .	Bombay . .	Calcutta . .	1,500 tons salt; value ₹14,000.
257	*Cawdor* . .	2,355	Ditto . . .	12th do. .	Liverpool .	Ditto . .	Salt; value not reported.
258	*Banffshire* .	899	British barque . .	Do. do. .	Cardiff . .	Ditto . .	Coals; value not stated.
259	*Baron Aberdare* . .	1,630	British ship . . .	Do. do. .	Calcutta . .	London . .	General; value not given.
260	*Bucephalus* . .	1,192	British screw steamer .	13th do. .	Ditto . .	Australia . .	Castor oil, gunny bales, tea and rice; value not known.
261	*Baron Aberdare* . .	1,630	British ship . . .	15th do. .	Ditto . .	London . .	General; value not reported.

Waters during the year 1884—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
On the Kaffray sands, about 70 to 80 yards to the eastward of the black Nun buoy off the point.	Hooghly river	Grounding. Carelessness of the pilot	None lost	None lost.
On the edge of the Seltive reef in the Inner harbour of Tuticorin.	Gulf of Manár	Ditto. Carelessness of the tindal	Ditto	Ditto.
On a sand-bank in the Alibág fort	Bombay coast	Ditto. Heavy weather	Ditto	Ditto.
On the edge of the Kaffray sands, in 6½ fathoms of water, 300 yards from the bank and about the same distance from the black Nun buoy.	Hooghly river	Loss of anchor and chain. Unavoidable.	Ditto	Ditto.
On the beach in the Malván harbour	Bombay coast	Grounding. Stress of weather	Ditto	₹550 worth was lost.
On the flat off Hooghly point	Hooghly river	Ditto. Unavoidable	Ditto	None lost.
Below Fisherman's point and a little above the Upper Fulta mark.	Ditto	Ditto ditto	Ditto	Ditto.
Near the Apex buoy in 8 fathoms of water, the Saugor lighthouse bearing E.S.E., Saugor roads.	Ditto	Damage to hull. Defective	Ditto	Ditto.
On the edge of the Middleton spit, a quarter of a mile above the Spit buoy.	Ditto	Grounding. Stress of weather	Ditto	Ditto.
On the beach, 200 yards South of the old Custom house, Calicut roadstead.	Malabár coast	Stranding. Defective ground tackle	Ditto	₹100 worth was lost.
On the beach, 200 yards W.N.W. of the lighthouse, Calicut roadstead.	Ditto	Ditto ditto	Ditto	.....
At No. 2 Garden reach moorings	Hooghly river	Collision with the ship *Monarch*. Eddy tide.	Ditto	None lost.
Ditto ditto	Ditto	Collision with the ship *British Nation*. Eddy tide.	Ditto	Ditto.
At Garden reach within the boundary of the port.	Ditto	Collision with the *Oudh* wreck buoy. Unavoidable.	Ditto	Ditto.
12 miles S.W. of the Eastern Channel lightship.	Sandheads	Collision with the ship *Turseena*. Carelessness of the master of the tug-steamer.	Ditto	.....
In latitude 20° 51′ N., longitude 87° 49′ E.	Ditto	Collision with the steam-tug *Defiance*. Carelessness of the master of the steamer.	Ditto	None lost.
Off the bar of the Orunga river	Gulf of Cambay	Sprung a leak. Heavy weather	Ditto	₹250 worth was lost.
At No. 7 Esplanade moorings	Hooghly river	Collision with the ship *Blair Drummond*. Carelessness of the assistant harbour master.	Ditto	None lost.
Ditto ditto	Ditto	Collision with the S.S. *Chanda*. Carelessness of the assistant harbour master.	Ditto	Ditto.
About 4 miles to the North of Vaux's tomb	Gulf of Cambay	Sprung a leak. Heavy weather	Ditto	₹1,122 worth was lost.
Near Mittubhoy in the Sina river	Ditto	Ditto ditto	Ditto	₹70 worth was lost.
Eight miles from the Outer lightship, entrance to Bombay harbour.	Bombay coast	Ditto. Unavoidable	Ditto	Partially lost; value ₹1,222.
At No. 7 Garden reach moorings	Hooghly river	Collision with the barque *Banffshire*. Carelessness of the assistant harbour master.	Ditto	None lost.
Ditto ditto	Ditto	Collision with the ship *Cawdor*. Carelessness of the assistant harbour master.	Ditto	Ditto.
At No. 8, Calcutta moorings	Ditto	Collision with buoys. Carelessness of the assistant harbour master.	Ditto	Ditto.
On the bank a little above point Jelly	Ditto	Grounding. Unavoidable	Ditto	Ditto.
In the Auckland channel, about 200 or 300 yards above the Lower Eastern Auckland buoy.	Ditto	Ditto ditto	Ditto	Ditto.

Number.	Name of Vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
262	*Maharaja*	1,046	British screw steamer	17th September	Calcutta	Point de Galle	Grain; value not stated.
263	*West Lothian*	1,814	British ship	Do. do.	Ditto	London	General; value not given.
264	*Clive*	572	British twin screw steamer	Do. do.	Towing	the ship *West*	*Lothian*
265	*Ruparel*	37	British Indian padow	18th do.	Broach	Bombay	Peas and grain; value ₹1,951.
266	*Earl of Beaconsfield*	2,488	British ship	19th do.	Calcutta	Dundee	Jute; value not stated.
267	*Pemba*	987	British screw steamer	24th do.	Maulmain	Rangoon	General; value not reported.
268	*Belpore*	1,200	British barque	Do. do.	Calcutta	London	Ditto ditto.
269	*Sacri Sallamatee*	40	British Indian pattimar	Do. do,	Cochin	Bombay	Coir and poonac; value not given.
270	*Ethiopia*	1,341	British screw steamer	25th do.	Calcutta	Rangoon	General; value not reported.
271	*Swordsman*	720	African screw steamer	27th do.	Bombay	Calcutta	Ditto ditto.
272	*Mooydin*	117	British Indian brig	30th do.	Negapatam	Colombo	Rice, &c.; value ₹9,000.
273	*Justitia*	1,986	British screw steamer	1st October	Calcutta	London	Jute, &c.; value not reported.
274	*Record*	1,722	British ship	4th do.	Ditto	New York	Jute, gunnies, seeds &c.; value not given.
275	*Culna*	1,469	British screw steamer	5th do.	Ditto	Bombay *vid* coast ports.	General; value not known.
276	*John Morrison*	1,286	Ditto	6th do.	Bombay	Calcutta	Water ballast
277	*Punjaub*	685	Ditto	8th do	Cutch Mándvi	Bombay	General; value ₹3,86,129.
278	*Huzara*	1,344	Ditto	Do. do.	Kurrachee	Ditto	Ditto ditto.
279	*Madura*	1,266	Ditto	9th do.	Calcutta	Rangoon	Ditto ditto.
280	*Washisti* (See Wrecks No. 54.)	83	British Indian paddle steamer.	Do. do.	Vengurla	Goa	75 passengers, but no cargo.
281	*Busheer*	587	British screw steamer	11th do.	Calcutta	Chittagong	General; value not stated.
282	*Salween*	100	British paddle steamer	Do. do.	Employed as a	steam-tug at the	port of Chittagong
283	*Stree Ranganaikuloo*	111	British Indian schooner	Do. do.	Narainganj	Chittagong	580 bales, jute; value ₹11,600.
284	*City of Venice*	2,091	British screw steamer	13th do.	Bombay	Liverpool	General; value not reported.
285	*Mecca*	936	Ditto	15th do.	East Atrican ports and Aden.	Bombay	Ditto ditto.
286	*India*	2,633	Ditto	Do. do.	Calcutta	London	Ditto ditto.
287	*King Arthur*	1,047	Ditto	16th do.	Bushire	Basra	140 passengers and a general cargo; value not given.
288	*Mobile*	916	Ditto	Do. do.	Ditto	Ditto	General, value not known.
289	*Aathiletchmy*	154	British Indian brig	17th do.	Tuticorin	Negapatam	In ballast
290	*Mohidin Bux*	198	Ditto	Do. do.	Cocanada	Pámban	Rice, paddy, and raggi; value ₹8,066.

Waters during the year 1884—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
On the mud flat off the Bowreah mills, and again on the Auckland bar, between the Lower Eastern Auckland and the Upper Eastern Eden buoys.	Hooghly river.	Grounding. Unavoidable.	None lost	None lost.
At Garden reach	Ditto.	Collision with the steam-tug *Clive*. Unavoidable.	Ditto	Ditto.
Ditto	Ditto.	Collision with the ship *West Lothian*. Unavoidable.	Ditto	.....
On the bar of the Ambika river	Gulf of Cambay	Sprung a leak. Heavy weather.	Ditto	₹500 worth was lost and ₹200 damaged.
On the bank at Garden reach	Hooghly river.	Grounding. Unavoidable.	Ditto	None lost.
Alongside the Shulay pagoda wharf in the Rangoon river.	Burma coast	Collision with boats. Carelessness of the crews of the boats.	Ditto	Ditto.
On the bank at Fisherman's point, and again in the Auckland channel, the Centre Western Auckland buoy a little open to the westward of Kedgeree.	Hooghly river.	Grounding. Unavoidable.	Ditto	Ditto.
Off the port of Cochin	Malabár coast	Loss of masts, &c. Heavy weather.	Ditto	Not reported.
At No. 1 Kidderpur moorings	Hooghly river	Collision with a buoy. Unavoidable.	Ditto	None lost.
One mile N.E. of the Outer lightship, entrance to Bombay harbour.	Bombay coast	Damage to engines. Not reported.	Ditto	Ditto.
Off the western buoy, in the Sand Bank channel, Pámban Pass.	Gulf of Manár	Grounding. Unavoidable.	Ditto	Ditto.
On the flat off Matea-bruj, Garden reach	Hooghly river	Ditto ditto.	Ditto	Ditto.
On the western edge of the Bellary sands; the Bellary tower bearing W. ½ S., the Upper Eastern Bellary buoy N. E. ½ N., and the Bellary Semaphore, North.	Ditto	Ditto ditto.	Ditto	Ditto.
In the Eden channel, abreast the Upper Eastern Eden buoy.	Ditto	Ditto ditto.	Ditto	Ditto.
On the bank above Fulta point	Ditto	Ditto ditto.	Ditto	.....
Between the Prong's and the Kolaba lighthouses, entrance to Bombay harbour.	Bombay coast	Collision with the S.S. *Huzara*. Carelessness of the pilot of the S.S. *Punjaub*.	Ditto	Partially damaged; value not reported.
Ditto ditto	Ditto.	Collision with the S.S. *Punjaub*. Carelessness of the pilot of the S.S. *Punjaub*.	Ditto	Ditto.
Off Budge-Budge, a little below the Bowreah mills in mid-channel.	Hooghly river.	Loss of anchor and chain. Unavoidable.	Ditto	None lost.
Between Redi and Vengurla	Bombay coast	Collision with padow *St. Antonio*. Unavoidable.	Ditto	.....
Off Moish khali in the Kornafuli river	Chittagong coast	Grounding. Unavoidable.	Ditto	None lost.
Ditto ditto	Ditto	Collision with the schooner *Stree Ranganaikuloo*. Unavoidable.	Ditto	.....
Ditto ditto	Ditto	Collision with the steamer *Salween*. Unavoidable.	Ditto	None lost.
4 miles W.S.W. of the Outer lightship, entrance to Bombay harbour.	Bombay coast.	Damage to engines. Unavoidable.	Ditto	Not reported.
½ a mile S.W. by S. of Rás Tarshine in the Inner harbour of Aden; the lightship bearing N.35° E. and Rás Tarshine S. 49° E.	South coast of Arabia.	Collision with the S.S. *India*. Carelessness of the master of the S.S. *Mecca*.	Ditto	Ditto.
Ditto ditto	Ditto	Collision with the S.S. *Mecca*. Carelessness of the master of the S.S. *Mecca*.	Ditto	Ditto.
At the entrance to the Basra river	Persian Gulf	Collision with the S.S. *Mobile*. Carelessness of the master of the S.S. *King Arthur*.	Ditto	None lost.
Ditto ditto	Ditto	Collision with the S.S. *King Arthur*. Carelessness of the master of the S.S. *King Arthur*.	Ditto	.....
On the sands off Kundugal point	Gulf of Manár	Grounding. Carelessness of the tindal.	Ditto	.....
Ditto ditto	Ditto	Ditto. Heavy weather.	Ditto	None lost.

Number.	Name of Vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
291	*Boogary Moidin Samdany.*	99	British Indian brig	17th October.	Tranquebar	Colombo	Animal bones; value not reported.
292	*Kathalin*	17	British Indian dhoney	Do. do.	Rámesvaram	Pámban	In ballast
293	*Telegraph*	166	British Indian brig	Do. do.	Negapatam	Ditto	Paddy, rice, and gram; value ₹6,765.
294	*Thanalekshmi*	167	Ditto	Do. do.	Colombo	Negapatam	Gunny bags; value ₹1,640.
295	*Meeramadan*	88	Cingalese brig	Do. do.	Kilakarai	Colombo	Fuller's earth; value ₹500.
296	*Mohidin Bax*	20	British Indian boat	Do. do.	Koyalpatnam	Pámban	In ballast.
297	*Inchgarvi*	1,724	British screw steamer	22nd do.	Newcastle-on-Tyne.	Bombay	3,400 tons coals; value not stated.
298	*Cutch*	1,123	British Indian steamer	24th do.	Aden	Ditto.	General; value not given.
299	*Brankêlow*	1,660	British screw steamer	25th do.	Suez	Ditto	Coals; value not reported.
300	*Oung Ban*	70	Burman schooner	30th do.	Rangoon	Chittagong	Sundries; value ₹2,000.
301	*Commilla*	550	British screw steamer	31st do.	Ditto	Calcutta	General; value not stated.
302	*Shekendar Sha*	337	British Indian brig	1st November	Narainganj	Chittagong	Jute; value ₹11,900
303	*Charles Worsley*	1,359	British ship	Do. do.	Chittagong	Dundee	Jute; value not reported
304	*Futtehul Munnan Robia.*	137	British Indian brig	Do. do.	Narainganj	Chittagong	Jute; value ₹24,700
305	*British Sceptre*	1,436	British ship	Do. do.	Calcutta	London	Jute; value not known.
306	*Orchomene*	1,542	Ditto	Do. do.	Ditto	New York	General; value not reported.
307	*Germanic*	1,296	American ship	Do. do.	Ditto	Ditto	8,540 bales jute butts; value ₹1,02,480.
308	*Azizar Rohman*	148	British Indian brig	Do. do.	Narainganj	Chittagong	Jute; value ₹4,000
309	*Charles Worsley*	1,359	British ship	Do. do.	Chittagong	Dundee	Jute; value not stated.
310	*Commilla*	550	British screw steamer	4th do.	Ditto	Calcutta	General; value not given.
311	*Rooparell*	7	British Indian padow	Do. do,	Bhávnagar	Broach	Rice, wheat, &c.; value ₹656.
312	*Coimbatore*	1,193	British ship	Do. do.	Mauritius	Chittagong	In ballast
313	*Atlantique*	540	French barque	5th do.	Calcutta	Port Chalmers (New Zealand.)	Gunny bags; value not given.
314	*Columbus*	97	British paddle steamer	Do. do.	Towing	the barque *Atlantique*	
315	*Bhagwanti*	11	British Indian mahangiri.	7th do.	Belápur	Thána	Salt; value ₹825
316	*Darlington*	1,293	British screw steamer	9th do.	Jiddah and Aden.	Calcutta	700 pilgrims and a cargo of salt; value not known.
317	*Routenburn*	1,997	British ship	13th do.	Calcutta	Dundee	Jute; value not reported.
318	*Ville de Marseille*	533	French barque	16th do.	Bourbon	Calcutta	In stone ballast
319	*Hispania*	2,213	British screw steamer	18th do.	Calcutta	Glasgow	Jute, &c.; value not stated.

Waters during the year 1884—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
On the sand off Kundugah point . . .	Gulf of Manár . .	Grounding. Heavy weather . .	None lost .	None lost.
On the sands near Mundel point . . .	Ditto . .	Ditto. Carelessness of the tindal .	Ditto .	.....
Ditto ditto . . .	Ditto . .	Ditto. Heavy weather . .	Ditto .	Slightly damaged.
On the beach, about 150 yards to the eastward of the Customhouse, Kilakarai port.	Ditto . .	Ditto ditto . .	Ditto .	Ditto.
On the beach, about 200 yards to the eastward of the Customhouse, Kilakarai port.	Ditto . .	Ditto ditto . .	Ditto .	Ditto.
On the beach, about 50 yards from the Customhouse, Kilakarai port.	Ditto . .	Ditto ditto . .	Ditto .	.....
To the North of Sokotra island, in latitude 14° N., longitude 52° E.	Arabian sea . .	Damage to engines. Cyclone . .	Ditto .	None lost.
200 miles to the Eastward of Aden, in latitude 13° 0′ N., longitude 48° 38′ E.	Gulf of Aden . .	Sprung a leak. Heavy weather . .	Ditto .	Partially lost; value ₹ 6,000.
On the 2¼ fathoms patch; the Mokha mosque bearing N. 65° E., distant about 4¾ miles.	Red sea . . .	Grounding. Incorrect charts . .	Ditto .	.....
Off the mouth of the Gonah creek, near Kutubdea.	Chittagong coast .	Loss of masts, &c. Heavy weather .	Ditto .	None lost.
Between the two outer bar buoys, at the entrance to the Kornafuli river.	Ditto . .	Collision with a Native brig (name unknown). Heavy weather.	Ditto .	Ditto.
Off Kumar khali, and again at the mouth of the Ballamiajhora khal, in the Kornafuli river.	Ditto . .	Collision with the ship *Charles Worsley* and the brig *Futtehul Munnan Robia*. Carelessness of the tindal of the *Shekendar Sha*.	Ditto .	Ditto.
At No. 6 moorings, off Kumar Khali, in the Kornafuli river.	Ditto . .	Collision with the brig *Shekendar Sha*. Carelessness of the tindal of the *Shekendar Sha*.	Ditto .	Ditto.
At the mouth of the Ballamiajhora khal, in the Kornafuli river.	Ditto . .	Ditto ditto .	Ditto .	Ditto.
At Kalpi roads; the Kantabaria obelisk bearing North, and the Kalpi pagoda E.by S. ¾S.	Hooghly river .	Loss of anchor and chain. Unavoidable	Ditto .	Ditto.
At No. 1 Matea-bruj ghât moorings . .	Ditto . .	Collision with the ship *Germanic*. Unavoidable.	Ditto .	Ditto.
Ditto ditto	Ditto . .	Collision with the ship *Orchomene*. Unavoidable.	Ditto .	Ditto.
Off Moish khali, in the Kornafuli river .	Chittagong coast .	Collision with the ship *Charles Worsley*. Carelessness of the tindal of the brig *Azizar Rohman*.	Ditto .	Ditto.
At No. 6 moorings, off Moish khali in the Kornafuli river.	Ditto . .	Collision with the brig *Azizar Rohman*. Carelessness of the tindal of the brig.	Ditto .	Ditto.
On the bank at Fulta point . . .	Hooghly river . .	Grounding. Unavoidable.	Ditto .	Ditto.
On a sand bank off the Narbada river . .	Gulf of Cambay .	Capsized. Carelessness of the tindal.	Ditto .	Partially lost; value ₹ 430.
On the eastern bank of the Kornafuli river, a little below the Katta khali black buoy.	Chittagong coast .	Grounding. Carelessness of the master of tug *Salween*.	Ditto .	.....
About 3 miles N.N.E. of the Eastern Channel lightship.	Sandheads . .	Collision with the tug steamer *Columbus*. Unavoidable.	Ditto .	None lost.
Ditto ditto	Ditto . .	Collision with the barque *Atlantique*. Unavoidable.	Ditto .	.....
150 feet from the Trombay barge, Bombay harbour.	Bombay coast .	Foundering. Bad caulking . .	Ditto .	Totally lost.
At No. 2 Calcutta moorings . . .	Hooghly river .	Fire. Not reported	Ditto .	None lost.
A little below Luff point	Ditto . .	Collision with a boat. Carelessness of the crew of the boat.	Ditto .	Ditto.
On the sands to the westward of the Jellingham channel; the Centre Western Jellingham buoy bearing S. by E. ½ E., the Upper, Western Jellingham buoy N.E. ¾ N., and the Lower Eastern Jellingham buoy S.E.	Ditto . .	Grounding. Carelessness of the pilot.	Ditto .	.....
On the northern bank of the river, about 100 yards below the Red buoy at Garden reach.	Ditto . .	Ditto. Unavoidable . .	Ditto .	None lost.

Number.	Name of Vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
320	*Rooparel* . . .	9	British Indian muchwa .	18th November	Gogha . .	Káir . .	General ; value ₹310 .
321	*Washi* . . .	265	Malayan steamer . .	19th do. .	Pulo Penang .	Renoung and Maulmain.	General ; value not known.
322	*Khengti* . . .	10	British Indian muchwa .	21st do. .	Kumta . .	Anjanvel . .	In ballast . . .
323	*Amiral Bâhâr* . .	203	British Indian brig. .	23rd do. .	Chittagong .	Narainganj .	Ditto . . .
324	*Shastri* . . . (See Wrecks No. 73.)	83	British Indian paddle steamer.	Do. do. .	Jaygad . .	Bombay . .	394 passengers, but no cargo.
325	*Clan Grant* . .	2,306	British screw steamer .	27th do. .	Liverpool .	Calcutta . .	General ; value not given
326	*John Hepburn* . .	83	Cingalese brig . .	30th do, .	Manár . .	Jaffna . .	Ditto ditto .
327	*Nagin* . . .	12	British Indian craft .	1st December.	Bombay . .	Goa . .	Cotton, wheat, &c. ; value ₹5,086.
328	*Cocanada* . . .	547	British screw steamer .	4th do: .	Calcutta . .	Rangoon *vid* Chittagong and Burman ports.	General ; value not known.
329	*Cornelia* . . .	202	British steamer . .	5th do. .	Maulmain .	Penang *vid* Malayan coast ports.	Rice ; value not reported
330	*Scindia* . . .	1,986	British screw steamer .	7th do. .	Calcutta . .	Bombay . .	General ; value not stated.
331	*Brenda* . . .	1,082	Ditto . . .	Do. do. .	Ditto . .	Dundee . .	Jute ; value not reported
332	*Futtay Mombarak* .	485	Arabian barque . .	Do. do. .	Zanzibar . .	Calcutta *vid* Maskat.	Salt ; value not known
333	*Mona* . . .	1,045	British barque . .	14th do. .	Liverpool . .	Rangoon . .	1,500 tons salt ; value not given.
334	*Mary* . . .	20	British steamer . .	Do. do. .	Falmouth .	Chittagong .	In ballast . . .
335	*Earl of Jersey* .	2,052	Ditto . .	15th do. .	Ditto . .	Ditto . .	Salt ; value not reported
336	*Cadzow Forest* .	1,068	Ditto . .	Do. do. .	Ditto . .	Ditto . .	Ditto ditto . .
337	*Defiance* . .	222	British paddle steamer .	17th do. .	Towing	the ship *Otterburn*.	
338	*Otterburn* . .	1,677	British ship . . .	Do. do. .	Calcutta . .	Dundee . .	2,503 tons jute ; value unknown.
339	*Vithalprasad* . .	40	British Indian padow .	Do. do. .	Mutwad . .	Dholera . .	Cocoanuts and iron bars ; value ₹1,598.

Waters during the year 1884—concluded.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
On the Mál bank off the Narbada river . .	Gulf of Cambay .	Capsized. Carelessness of the tindal .	None lost .	Totally lost.
In the Straits of Malacca (exact position not given).	Malacca Straits .	Damage to engines. Unavoidable .	Ditto .	Partially damaged; value not known.
On shoal at the entrance to the Kumta creek.	Bombay coast .	Grounding. Stress of weather . .	Ditto .	.....
In the Sundeep channel, mouth of the river Megna.	Sunderbuns . .	Collision with the schooner *Moideen Bux*. Not exhibiting lights.	Ditto .	.....
About 2½ cables West of the Yeldur rock and 150 feet off the South shore, in Dábhol or Wáshishti river.	Bombay coast . .	Collison with the steamer *Shirawuttee*. Carelessness of the masters of both steamer.	Ditto .	.....
Off No. 3 Prinsep's ghât moorings . .	Hooghly river . .	Collision with a boat. Carelessness of the crew of the boat.	Ditto .	None lost.
On the Horse Shoe bank near the buoy .	Gulf of Manár .	Grounding. Unavoidable . . .	Ditto .	Ditto.
Off the port of Harnai	Bombay coast .	Capsized. Stress of weather . .	Ditto .	₹1,225 worth was lost.
In the centre of the river, abreast the Garden House steps, Garden reach.	Hooghly river .	Loss of anchor and chain. Unavoidable.	Ditto .	None lost.
On the tail of the Godwin sands, near the Spit buoy, entrance to the Salween and Maulmain river.	Burma coast . .	Grounding. Unavoidable . . .	Ditto .	Ditto.
On the bank off Melancholy point, and again below the Dingywallah's flat.	Hooghly river . .	Ditto ditto . . .	Ditto .	Ditto.
On the bank off Nurpur	Ditto . .	Ditto ditto . . .	Ditto .	Ditto.
At No. 1 Kidderpur moorings . . .	Ditto . .	Collision with flat *Rhotas*. Unavoidable.	Ditto .	Ditto.
Off Mr. Hopper's gridiron at Daneedau in the Rangoon river.	Burma coast . .	Loss of anchor and chain. Unavoidable.	Ditto .	Dtto.
On a sand bank a little off the west end of Minikoi island.	Maldivhs . .	Grounding. Carelessness of the master	Ditto .	.....
Off the Salt godowns at Lamadau in the Rangoon river.	Ditto . .	Collision with the barque *Cadzow Forest*. Carelessness of the assistant harbour master.	Ditto .	None lost.
Ditto ditto . . .	Ditto . .	Collision with the barque *Earl of Jersey*. Carelessness of the assistant harbour master.	Ditto .	Ditto.
6 miles S.S.W. of the Eastern Channel lightship.	Sandheads .	Collision with the ship *Otterburn*. Unavoidable.	Ditto .	.....
Ditto ditto . . .	Ditto . .	Collision with the steamer *Defiance*. Unavoidable.	Ditto .	None lost.
In the Dholera creek	Gulf of Cambay .	Grounding. Carelessness of the tindal.	Ditto .	₹196 worth was lost.

NOTES ACCOMPANYING THE CASUALTY STATEMENT FOR 1884.

JANUARY.

THE British iron screw steamer ANGELICA [of London, 884 tons register, official number 82773], from Basra to London, with a general cargo. On the 1st January the steamer, when proceeding down the Basra river (Persian Gulf), touched the bank, owing to the carelessness of the master, at the entrance of the river, and remained fast for a day and night, losing an anchor. No damage to the steamer or cargo. Value of anchor and chain lost not reported. No loss of life. (No further information could be obtained regarding this casualty; but it was reported that the steamer passed Bushire on the night of the 3rd January without furnishing the Resident with a report of the accident.)

2. The British iron screw steamer MALEK [of London, 1,054 tons register, official number 87078], from Cardiff to Basra, with a cargo of coals, &c. It appeared that the steamer arrived at Jiddah, in the Red sea, on the 2nd January, and after discharging some cargo, *viz.*, a few bales in quarantine, made an attempt to proceed on her voyage for Basra on the 3rd, when she grounded about 9 A.M. on a sandy bank in the Inner anchorage of Jiddah. As the steamer could not be got off by heaving, the coals were discharged, and after having been lightened of about 120 tons she floated off on the afternoon of the 4th. The bottom was sandy and therefore no serious damage was done to the steamer. She afterwards reloaded the coals and sailed at once for the Persian Gulf. The vessel was aground for about 40 hours. Value of damage to the steamer, £70; cargo, £30. No loss of life. (It was stated that as the steamer was in quarantine, no report or protest was made by her master in the Consulate at Jiddah. The casualty was probably caused by the carelessness of the master.)

3. The British iron screw steamer COVENTINA [of Newcastle-on-Tyne, 1,062 tons register, official number 83886], from Basra to Jiddah, with a general cargo. It appeared that the steamer left Basra on the 26th December 1883, with a general merchandise bound for Jiddah, and that nothing of importance occurred until the 4th January. At 8 A.M. on that day the master stated that when in the Gulf of Aden, exact position not given, about one day's voyage eastward of Aden, with light air and fine weather, he found two blades of the propeller lost; on the following day he put into Aden, where she coaled, took a part cargo, and left again at 10-30 P.M. the same day without having effected any repairs. No damage to the steamer or cargo. Value of damage to the machinery not reported. No loss of life. (The cause of the casualty was not reported.)

4. The Native padow LABSAWAI [of Cambay, 25 tons register, official number 2, age 25 years], from Bombay to Cambay, with a cargo of kerosine oil, cloth, &c. The tindal stated that on the 5th January, whilst coming to an anchor during ebb-tide, off Gangwa, in the Gulf of Cambay, the padow went foul of her anchor, and holes being knocked in her bottom in two places she rapidly filled with water and foundered at 8 P.M. A portion of the cargo floated out of her and some was jettisoned, after which the padow was recovered and re-

paired. Value of damage to the padow, ₹ 200; cargo, worth ₹ 1,426, was lost, and ₹ 1,200 damaged. The crew, 8 men, safely swam ashore. (The accident was caused by the carelessness of the tindal.)

5 & 6. The British iron screw steamer COVENTINA [of Newcastle-on-Tyne, 1,062 tons register, official number 83886], from Basra to Jiddah, with a general cargo. On the 7th January the steamer, whilst sailing up the Red sea, encountered bad weather, with high sea, which caused the vessel to ship much water on deck. At 6 P.M. on the 8th fresh northerly gales and the weather cloudy, the high sea caused the vessel to ship much water; at 10 P.M. the third blade of the propeller was found broken, exact position not given, when the master eased the engines to slow. On the 9th strong gales and cloudy from he North, high sea caused much water on deck; at 6-50 A.M. the last blade of the propeller was lost about 110 miles S.½ W. from Jiddah. The master afterwards sighted two steamers and signalled to them to take his vessel in tow, but they having answered in the negative, the master of the *Coventina* then hoisted the signal indicating immediate assistance, whereupon the steamer *Sportsman* came alongside at 8 A.M. and offered to tow the *Coventina* into Jiddah. At 11 A.M. on the 9th, when 40 miles S. ½ W. from Jiddah, she was secured with two ropes, the weather was a little moderate, but at 1 P.M. it blew a fresh gale from N. by. W., and the steamer took much water over the bows; he wells were sounded as usual and the pumps attended to. A 9-20 P.M. the S.S. *Sportsman's* tow rope parted; the gale moderated, and at 5 P.M. on the 10th the weather was fine; Jiddah bore East 15 miles, but the master stated that he deemed it too late to proceed into the harbour, and consequently kept the vessel dodging about during the whole of that night, when, on the next day, 11th, at 10-30 A.M., he brought her up into Jiddah harbour. On the 21st January a survey was held on the S.S. *Coventina* lying in Jiddah harbour. The Surveyors reported that the vessel left Basra for Jiddah, and on her voyage lost all the fans of the propeller and was towed into Jiddah by the S. S. *Sportsman*. They examined the damaged screw and recommended that new fans be shipped in lieu. On the 23rd the Surveyors again examined the propeller of the S.S. *Coventina*. They stated that after due examination they found that the screw had been fitted with other fans, which were properly fixed to the engineer's satisfaction. No damage to the steamer or cargo. Value of damage to the machinery not reported. No loss of life. (It was reported that although the *Coventina* called at Aden, the master did not consider it necessary to either note, protest, or make a survey, but proceeded with the remaining two blades, which, in consequence of heavy weather in the Red sea, were subsequently broken and hence was towed into Jiddah with loss of her propeller.)

7. The British iron ship ARDMILLAN [of Glasgow, 1,655 tons register, official number 80418], from Buenos Ayres to Rangoon, with ballast. On the 11th January the ship was proceeding up the Gulf of Martaban with jib and spanker set, and was making for the Rangoon river; it was at the time broad daylight, it being flood-tide, the weather fine with light N. E. winds, and the sea smooth. At 11 A.M. the steamer *Ava,* in endeavouring to get ahead of the ship preparatory to passing hawsers, went too close, and thus came into collision with the ship *Ardmillan* about 10 miles S. E. of the China Ba-keer lighthouse (Burma coast). The *Ava's* backstay having caught the ship's whisker, the maintopmast and flagstaff of the former were carried away; the steamer did some slight damage to the ship's awning rails and stanchions. Value of damage to the *Ardmillan* not reported. No cargo on board. No loss of life. (The collision was accidental.)

8. The British iron steamer AVA [of Maulmain, 207 tons register, official number 44798] was employed as a tug steamer in the Rangoon river. On the 11th January the steamer was lying at anchor at the Pilots' station, entrance to

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the Rangoon river, Gulf of Martaban (Burma coast), and having sighted the ship *Ardmillan,* 10 miles off, proceeded towards her. The *Ava* arrived on the same day, and at 11 A.M. on passing close to the ship for the purpose of taking in the lines of the *Ardmillan,* which vessel was under sail, in order to take her in tow, the *Ava* unhappily came into collision with the *Ardmillan* doing some little damage to the latter vessel's awning rails and stanchions. The *Ava* got her maintopmast and the flagstaff broken. Value of damage to the *Ava,* ₹ 100. No loss of life. (The collision was accidental.)

9. The British Indian padow RAMPRASAD [of Surat, 25 tons register, official number 3590], from Bombay to Dholera, with a cargo of cocoanuts, rice, and kerosine oil. On the 12th January the padow was anchored off Dholera in the Gulf of Cambay. In the meantime the ebb-tide ran out, and when the flood made it washed away the sand from under her, and at 2 A.M. she consequently fell over on her side on the sand bank and foundered. The crew in order to lighten her had to jettison a considerable portion of her cargo, after which she was successfully righted. The padow was subsequently recovered without having received much damage. Cargo worth ₹ 1,379 was lost. No loss of life. (The casualty was caused by the tindal having anchored the padow in a very dangerous position.)

10. The British iron screw steamer NERBUDDA [of Glasgow, 1,948 tons register, official number 86747], from Calcutta to Bombay *viâ* coast ports, with a general cargo. It appeared that on the 12th January the steamer was proceeding down the Hooghly river under pilotage charge; at 4-20 P.M. the tide being nearly low water, falling to 3 feet, the steamer, owing to the extension of the shoal in the Dredge channel, touched the ground abreast of Kedgeree, about 300 yards W. S. W. of the Nun buoy. She never ceased to move or answer her helm during the fifteen minutes she was touching the ground. The least water found with the lead was 19 feet, and the wells on being sounded after the occurrence showed no difference. No damage to the steamer or cargo. No loss of life. (The pilot reported that the chart showed nothing less than 20 feet in the position where the vessel grounded; but on inquiry from the Port Commissioners it was found that the extension referred to was the same as that stated in the River Surveyor's report of the 18th January. The casualty was consequently due to an extension of the sand, and was therefore no fault of the pilot.)

11 & 21. The French iron screw steamer CHOLON [of Marseilles, 1,972 tons register, official number 14627], from Oran (Algeria) to Tongking, with 611 troops, but no cargo on board. It appeared that the transport *Cholon* left Suez on the 9th January, and that up to the 12th there were no remarkable circumstances to note. On that day, when about 330 miles eastward of Aden (Gulf of Aden), she experienced violent winds from the S. E. with heavy sea; on the night of the 14th the master said that no doubt through a piece of rock or a buoy which had broken loose, one entire wing of the screw was lost, and two other wings were damaged; about a third of it, more or less. The master stated that the steamer was filled with French troops for destination to Tongking, and having a pressing mission to fulfil, and not being in close proximity to a port with dry docks, there was no other alternative but to continue on her route with her propeller disabled. On the 23rd January, whilst 120 miles eastward of Cape Comorin in latitude 7° 49′ N., longitude 75° 37′ E. (Indian ocean), the steamer experienced very heavy sea when several violent shocks were stated to have been heard all of a sudden from the small cylinder. The master stopped the steamer immediately, but the piston had made two or three revolutions which caused the cover of the small cylinder and the ring of the small piston to break. The master accounted for the accident to the rupture of one of the packing rings of the small piston; this ring being jammed between

the piston and the cover at the high dead points, was the cause of the breakage of these two pieces. After 52 hours of hard work, both night and day, the machinery was put in a state to do its work as slowly as possible, and by the aid of her canvas the *Cholon* put into Colombo on the 27th January. On the following day the Engineer Surveyors appointed by the French Consular Agent proceeded on board the steamer for the purpose of ascertaining the damage done to the high pressure engine. They reported that they found the cover of the cylinder had been split in halves and the whole of the flange broken from the body of the cover; the junk ring broken into fragments, and one of the two packing rings broken in halves. The beams, struts, and supports used to stay the cylinder cover were cut from spars taken from the vessel's fittings, and the repairs to the junk ring were made good by cutting up engine-room foot plates. The chief engineer of the steamer informed the surveyors that the repairs which they had accomplished occupied 52 hours at sea; under great difficulties he had cut segments of plates out of the engine-room foot plates to patch the junk ring. To hold the cylinder cover in its place he had forged several wrought-iron clamps in order to pass over the body of the cover and so hold it in its place; to stiffen this after fixing the cover he had cut two beams of timber, fitting them across the engine-room skylight and attaching them to the deck and from them carrying struts down to the covers. The Engineer Surveyors considered that the chief engineer of the *Cholon* displayed great ingenuity in these repairs, and stated that they could not compliment him too highly for his efficiency for thus enabling the steamer to reach Colombo in safety for repairs. It was necessary that a new cover and a new junk ring be made for the purpose of the vessel proceeding on her voyage. They accordingly advised the work be completed with all possible speed, and that after being repaired a survey should be held to approve of the same. The Engineer Surveyors stated that they went on board the *Cholon* again to examine the repairs executed to the high pressure engine. They reported that they examined the high pressure cylinder cover, junk ring, two piston packing rings, new bolts and small fittings, and found that the castings were sound, free from blow holes, and of a good quality; the machinery and fittings were done in a first class workmanlike manner. They also examined the jointing of junk ring and closing up of cylinder; the jointing of cover, packing of gland, and fixing of mountings and connections of cover, and found all in good condition. The engines were tried for ten minutes before the steamer left her moorings and worked successfully. The repairs had all been executed in a very satisfactory manner and reflected great credit on the firm of Messrs. Walker & Co., who had just established a new foundry (but which was incomplete and still in its infancy) for their expedition in the completion of the same. The *Cholon* on the 11th February proceeded from Colombo on her voyage. No damage to the steamer. Value of damage to the machinery, ₹7,800. No loss of life. (The casualty was accidental.)

12. The British iron ship SIERRA MORENA [of Liverpool, 1,885 tons register, official number 74469], from Chittagong to Dundee, with a cargo of jute. It appeared that on the 16th January the ship *Sierra Morena,* in charge of a pilot, was lying at No. 1 buoy in the Kornafuli river (Chittagong coast) with a tug-boat alongside, preparatory to proceeding to sea; at noon, when swinging to the flood-tide, the *Sierra Morena's* heel took the ground on the South bank of the river owing to the buoy's mooring chain having been carried away. No damage to the ship or cargo. Damage to the buoy not reported. No loss of life. (The Port Officer of Chittagong reported that the mooring swivel parted when the ship took the ground owing to the cross strain, and as the casualty had been fortunately of a trifling nature, no Departmental Committee of Inquiry was held, but the pilot had been reprimanded and warned to be more careful in future.)

13. The British Indian craft YESHWANTI [of Rái, Thána, 8 tons register official number 1304], from Dáhánu to Marolii, n ballast. The tindal stated tha the craft had proceeded on her voyage as far as the mouth of the Tárápur creek (Bombay coast), when on the 17th January, at 4 P.M., she met with a sudden storm and capsized. She was subsequently recovered, and found to have sustained damage to the amount of ₹100. No cargo on board. The crew, 4 men, were picked up by a battalla that was passing by at the time.

14. The British iron barque BRITISH ARMY [of Liverpool, 1,289 tons register, official number 62332], from Rio Janeiro to Chittagong with 580 tons ballast. On the 18th January the barque, in charge of a pilot, was being towed up the Kornafuli river (Chittagong coast) on the flood by a small screw boat called the *Alexandros,* which proved unequal to hold the vessel. At 1-30 P.M., when a squall came down, the barque took the bank below the Kumar khali, and lay alongside until the tide slacked. Measures were taken by the pilot in letting go the anchor, but owing to the vessel being so close in shore sufficient chain could not be given to allow of the anchor holding. The *British Army* came off at the night high-water after being aground 8 hours. No damage to the barque or cargo. No loss of life. (It was reported that owing to the accident being of a trifling nature no Departmental Committee of Inquiry was held; the pilot, however, was reprimanded and warned to be careful in future.)

15. The German wooden brig EMMI & OTTO [of Blankenese, 266 tons register, official number not reported], from Calcutta to Port Natal, with a general cargo. On the 19th January the brig was proceeding down the Hooghly river in tow of steamer *Gauhati* and in pilotage charge; on passing through the Bellary channel the pilot was obliged to bring up at sundown in 19 feet of water close to the Centre Eastern Bellary buoy. At 8 P.M. the pilot, fearing that the vessel would touch her anchor in swinging flood, tripped the anchor and endeavoured to drop into the 19 feet line, but a slight breeze from the southward having caught the vessel, she consequently shot over faster than the pilot anticipated, and bilged on the bank below the Bellary tower. The pilot with the aid of the kedge and hawser hauled her off into the channel at once and anchored her in 21 feet of water. No damage to the brig or cargo. No loss of life. (The accident was unavoidable.)

[A Departmental Committee of Inquiry was held in the Port Office, Calcutta, on the 28th January for the purpose of inquiring into the conduct of the pilot for having caused the brig *Emmi & Otto* to ground. The Committee, after having carefully considered the report of the pilot, which was the only evidence in this case, the vessel having left port no witnesses could be produced, were of opinion that the bilging of the brig *Emmi & Otto* was accidental, and that the pilot was justified in endeavouring to put the vessel into deeper water.]

The officiating Port Officer concurred in the opinion expressed by the Committee that the casualty was due to an accident, and not to the wrongful action of the pilot.

16. The British Indian padow RUPAREL [of Surat, 35 tons register, official number 3408, age 45 years], from Umbargaon to Surat, with a cargo of teakwood. On the 19th January, the padow was anchored off Karadi bandar in the Tápti river (Gulf of Cambay), but the tide coming in with much force she suddenly turned round and fell over on her side at 4 P.M.; her false gunwale having given way, a portion of the cargo was washed out of her, when she finally righted herself. Value of damage to padow, ₹200; cargo worth ₹94 was lost. No loss of life.

17. The British iron screw steamer COCANADA [of Glasgow, 547 tons register, official number 67995], from Calcutta to Rangoon *viâ* Burman coast ports, with a general cargo. On the 20th January, the steamer in charge of a pilot was proceeding down the Hooghly river; at 9-25 A.M., whilst she was crossing the

Moyapur bar, during ebb-tide, the Eastern Fairway track marks a little open, it was discovered that the S. S. *Maharani* was overtaking the *Cocanada*. The pilot of the latter vessel observed, as the former drew ahead, she was coming over on her starboard helm, so he starboarded the *Cocanada's* helm and continued to starboard until it was hard over, and the *Maharani* coming over all the time he stopped the engines, but the *Maharani* was proceeding at such an angle that he could not keep clear of her. The consequence was that the latter vessel dropped right on top of the *Cocanada,* and thus came into collision, the *Maharani* carrying away the *Cocanada's* upper gangway ladder, bridge stanchions, a new gig and a forward life-boat davit; damaged the mail boat, bent the after life-boat davit, the mail boat davits, and the after main deck stanchions. The first place the S. S. *Maharani* struck the *Cocanada* was on the port bow, breaking the starboard bower anchor short off below the stock. When the vessels separated the *Cocanada* was close to the Moyapur shore, and the master of the steamer stated that had the vessel gone any further over on her starboard helm, she would most assuredly have gone ashore. Value of damage to the *Cocanada* not reported. No damage to cargo. No loss of life.

[A Departmental Committee of Inquiry was held at the Port Office, Calcutta, on the 28th and 29th January, 14th February and 10th June, for the purpose of inquiring into the circumstances attending the collision between the steamers *Maharani* and *Cocanada,* which took place on the 20th January whilst the former was in charge of a senior master pilot and the latter vessel in charge of a mate pilot. The Committee recorded that it read the reports of the pilots, and on inquiry found that the pilot of the *Maharani* and a branch pilot, who was a passenger on board the S.S. *Maharani,* were the only witnesses in Calcutta, and after having proceeded with their examination, it adjourned till the 29th January, as the principal witnesses were not then before the Committee. On the 29th January, the pilot of the *Cocanada* being present, he was examined, and the Committee observed that the evidence of the third officer of the *Cocanada* was necessary to substantiate the statement with regard to the moment the engines of that vessel were stopped and the helm put hard on the starboard; and at the sametime agreed in thinking that the *Cocanada,* seeing the *Maharani* approaching, ought to have taken a more northerly track, and that the *Maharani* might have made some endeavour to avoid the collision. On the 14th February the Committee heard the evidence of the master and the third officer of the steamer *Maharani*, and observed that it still held the opinion that the evidence of the third officer of the S.S. *Cocanada,* who was on the bridge at the time of the collision, was absolutely necessary to the proper solution of this inquiry, and on this ground a further adjournment of the Inquiry was necessary.]

The Port Officer observed that the Departmental Committee of Inquiry had already been sufficiently prolonged to get the evidence of the third officer of the S.S. *Cocanada.* At the same time it did not appear that the *Cocanada* was likely to return for some time, and moreover two members of the Committee had left Calcutta. As the case seemed perfectly clear, the Port Officer did not at all concur with the Committee in the necessity for this evidence, but pronounced the pilot of the *Maharani* entirely to blame on his own statement, and recommended that the Government should mark its displeasure by placing him on half earnings for the space of three months. It appeared that the steamer *Cocanada* was proceeding down the Hooghly river in the usual course, and was followed by the steamer *Maharani,* which vessel overtook her at the Moyapur bar crossing and attempting to pass her at that point went so close as to bring about a collision. As the *Maharani* only gained five minutes in time on the *Cocanada* in the 20 miles between Atchipur and Hooghly point, which distance was traversed in one and a half hours at the rate of 13 miles an hour, with the tide, the difference of speed between the steamers could have been accurately calculated

to have been less than three quarters of a mile an hour; the pilot of the *Maharani* therefore exaggerated the case when he said that he was overtaking the *Cocanada* rapidly. The pilot's own statement was that he took the fairway track,—the same track as the *Cocanada* had taken—and when he got abreast of her he was only 20 or 30 yards off, and then hailed the other vessel to get out of his way. There was a recognized track farther to the westward called the Western Fairway, which the pilot of the *Maharani* could have taken, the depth in which was even more than in the Fairway, and in which he would have been quite 100 yards farther off the *Cocanada*. The pilot, however, preferred to bring the *Maharani* to within a distance of 20 or 30 yards without any adequate reason, and this distance was insufficient for safety, as the slightest alteration in her course, or a slight sheer, would have brought the vessels alongside each other when running so close together. The pilot of the *Maharani* was the overtaking vessel until just before the collision, and as such he was bound to have kept out of the other's way, and not unnecessarily to have passed in such perilous vicinity, thereby endangering both steamers. But the pilot had further no right to have selected such a spot to have passed the other vessel, *viz.*, exactly on one of the bars; a few revolutions of reduced speed and he would safely and easily have passed below the bar. The fact of the pilot of the *Cocanada* being a junior officer gave the pilot of the *Maharani* no right, as he appeared to think, to elbow him out of the way, and the pilot on his own showing did nothing whatever to avoid the collision. The pilot of the *Cocanada* stated positively that his engines were stopped and his helm starboarded before the accident. He could do no more, and even if this was disputed, the Port Officer could not hold the pilot of the *Cocanada* to blame. The only evidence the third officer and others of the *Cocanada* could adduce would have been on these points. The Port Officer considered that the pilot of the *Maharani* was guilty of reckless navigation, and alone to blame. There was no reason to believe that he was intoxicated, as he had hitherto been a careful pilot, and there were only about seven previous cases of accident recorded against him, but happily none serious.

The Lieutenant-Governor of Bengal returned the proceedings of the Departmental Committee of Inquiry in the *Cocanada-Maharani* collision case, and directed that the evidence of the third officer of the former vessel, required by the Committee, be taken with a view to the completion of the Inquiry that was held in this matter.

[The Committee recorded that when most of the evidence had been taken by the first appointed President of the Departmental Committee of Inquiry he went to England on leave and one member had gone to sea. Another President, who had been a member in the former Inquiries, was appointed, together with a new member. This Committee sat on the 14th June, and after having read the proceedings of the Departmental Committees of Inquiry, also extract of a letter from the Port Officer to the Government, it called and examined the third officer of S.S. *Cocanada*. This Committee, after a careful consideration of all that had been brought before it, were distinctly of opinion that certainly the *Maharani,* by having unnecessarily gone too close to the *Cocanada,* caused the accident; and the pilot of the *Maharani* appeared to have done nothing to avoid the collision, though it was apparent he had room to the starboard.]

The Port Officer submitted the further proceedings and report of the Departmental Committee of Inquiry held to inquire into the collision between the steamers *Cocanada* and *Maharani* which was called for by the Government. Owing to the absence in Europe of the former President and one nautical member, the Port Officer appointed a Branch Pilot, who was former member, President, and associated with him a second member. This Committee were of opinion, and in which the Port Officer agreed, that the *Maharani* by having unnecessarily gone too close to the *Cocanada* caused the accident, and the former

vessel appeared to have done nothing to avoid the collision, though it was apparent she had room on her starboard side to have kept at a safe distance.

The Lieutenant-Governor of Bengal, after considering the papers of the case, was quite satisfied that the collision, which took place between the steamers *Cocanada* and *Maharani,* was caused by the pilot in charge of the *Maharani* disregarding a rule (rule 4, section I, chapter IV of the rules for Running Pilots) which, under the standing orders of Government, he was bound to observe. The Lieutenant-Governor, therefore, under section 21 of Act XII of 1859, considered it necessary to inflict some punishment upon him, and accordingly directed that when the pilot returned from leave he should be placed on half earnings for three months.

18. The British iron screw steamer MAHARANI [of Liverpool, 1,617 tons register, official number 81974], from Calcutta to Port Blair, with a general cargo. The steamer, on the 20th January, was proceeding down the Hooghly river in pilotage charge. At 9-30 A.M. the *Maharani,* in crossing Moyapur in the Western Fairway track during the first quarter of the ebb-tide, came into collision with the *Cocanada.* The *Maharani* was struck about 70 feet abaft the bridge on the port side, and had her two after boats damaged, the after gangway carried away, and some slight damage to stanchions, &c., estimated value ₹800. No cargo lost. The hull of the steamer *Maharani* had not received any damage, and she proceeded on her voyage immediately after the accident. No loss of life.

19. The British iron steamer CASHMERE [of Calcutta, 750 tons register, no official number] was being towed from the Union dock, Howrah, to Garden reach for completion of repairs. On the 22nd January the steamer, in tow of the Port Commissioners' steamer *Hetty,* was being moved from above the Hooghly bridge to Garden reach. At 9-40 A.M. on that day in proceeding down the Hooghly river through the bridge, when near the northern entrance of the opening of the Hooghly bridge, it being close on to slack water, the assistant harbour master in charge of the Intermediate lightship *Mermaid* cast off from No. 23 buoy, sheered out and the stern of the lightship came into collision with the steamer *Cashmere,* striking her on the bow. The *Cashmere's* port bower anchor stock was broken in two, fish davit bent, fish tackle and davit guy carried away, port sponson beam bent on the outside in the wake of the buffer piece; estimated value ₹150. No cargo on board. No loss of life. (The master of the *Cashmere* reported that he considered the assistant harbour master was to blame for casting off at the time he did, as the steamer *Hetty* had not time enough to get sternway on her by backing before the lightship *Mermaid* fouled the *Cashmere,* as she had too much headway on her when the lightship cast off.)

[The Vice-Chairman, Port Commissioners, observed that he considered the accident to have been due entirely to the steamer *Cashmere* coming on when he ought to have seen that the lightship *Mermaid* was underweigh and making for the Hooghly bridge opening. The *Cashmere* must have been half a mile above the bridge when the lightship cast off. It was not until she was close to the bridge, and almost foul of the bridge steamer, which was towing the lightship, that she commenced to reverse, and it was this reversing which caused the collision, as it sent her across the tide. Had she gone straight on the accident would have been averted, for there was plenty of room to get through the opening without running any risk of a collision. The Vice-Chairman did not consider any of the officers of the lightship to blame. The collision was caused entirely by the masters of the *Cashmere* and the *Hetty* that had her in tow.]

20. The British wooden vessel MERMAID [of Calcutta, 250 tons register, belonging to the Indian Government], employed as the *Intermediate,* lightship,

was proceeding to her station, which is halfway between the Lower Gaspar and the Eastern Channel lightships, at the Sandheads. It appeared that on the morning of the 22nd January the steam-tug *Hetty* took the steamer *Cashmere* in tow from off the Union dock, and was proceeding down the Hooghly river at half speed; at 9-35 A.M., just before approaching the northern side of the Hooghly bridge opening, she had two or three native boats on her port side, which were also being towed by their jolly boats, at which time the *Mermaid,* in charge of an assistant harbour master and in tow of the Hooghly bridge steamer *Helvetia,* suddenly made for the Hooghly bridge opening from No. 23 buoy, thus crossing the bows of the tug *Hetty.* As soon as the *Helvetia's* intention was noticed the *Hetty's* engines were reversed full speed, and kept so for over four minutes; but notwithstanding the port bow of the steamer *Cashmere* came into collision with the stern of the brig *Mermaid,* though happily not with much force, breaking the *Cashmere's* port anchor stock and bending the davit. Trifling damage to the *Mermaid.* No loss of life.

21. CHOLON (*see paragraph 11*).

22. The British iron ship POMONA [of Glasgow, 1,199 tons register, official number 56174], from Liverpool to Rangoon, with a cargo of coals. On the 26th January the ship in tow of the steam-tug *Ngapoota,* and in charge of a pilot, had proceeded up the Rangoon river (Burma coast); on arrival of an assistant harbour master the pilot was relieved. It appeared that the assistant harbour master directed the tug steamer to proceed easy on arriving at the buoy off the Dalla dock; orders were given to turn the ship *Pomona* and the tug then left. In the meantime instructions were issued to have the anchor ready and whilst rounding-to the order was given to let go the anchor with 10 fathoms of chain, but the crew on board the *Pomona* only veered 7 fathoms, whereupon the assistant harbour master ordered a little more chain, and the men let more chain, but they were unable to check the chain; and when they did, the chain suddenly broke at 17 fathoms, carrying with it the anchor. Another anchor was immediately ordered to be dropped, and the ship was brought up to her proper anchorage. The anchor and chain were subsequently recovered and delivered to the *Pomona* before her departure from Rangoon, estimated cost £6. No damage to the cargo. No loss of life. (It was reported that the casualty was accidental.)

23. The British iron screw steamer BUSSORAH [of London, 1,292 tons register, official number 85091], from Basra to London *vid* Bushire, with a general cargo. The master stated that on the 27th January the steamer was proceeding down the Basra river (Persian Gulf) in charge of a pilot; that at about 7 A.M. it was ebb-tide, and the wind was variable, the sea was calm, and it was fine weather. The steamer when just at the entrance, owing to the deficiency of water, grounded on the bar, and with the assistance of coolies, after having discharged a portion of the cargo, got off on the 29th, after having been aground two days. Value of damage to the steamer and cargo not reported. No loss of life. (The casualty was caused by the negligence of the pilot in having persisted to attempt to cross the bar knowing that the tide had fallen.)

24. The Italian wooden barque ANGELA [of Spezzia, 872 tons register, official number not reported], from Bremen to Rangoon, with salt and a general cargo. On the 29th January, at 5 A.M., the assistant harbour master boarded the barque *Angela,* lying in the Rangoon river (Burma coast), in order to transport her from the Shulay pagoda wharf to her berth. It was flood-tide, the weather being fine and clear and whilst dropping up the river, the assistant harbour master had occasion to let go the anchor, and accordingly ordered the crew to do so, but unhappily the chain got jammed in the windlass. The assistant harbour master, however, without loss of time,

ordered the other anchor to be dropped, but this one also got jammed as the first; the result of this inattention to the gear of the *Angela* by the master and crew was that the stern of the barque came into collision with the jibboom of the *Mudcline Rickmers* off the Shulay pagoda wharf. Slight damage to the *Angela*. No cargo lost. No loss of life. (The collision was accidental, inasmuch as it was caused through the barque *Angela's* compressor being jammed, preventing the chain running out.)

25. The German wooden barque MADELINE RICKMERS [of Gestimunde, 1,277 tons register, official number not reported], from Singapore to Rangoon in ballast. It appeared that the barque *Madeline Rickmers* was lying moored with both anchors off the Shulay pagoda wharf, in the Rangoon river (Burma coast). On the morning of the 29th January the barque *Angela,* in dropping up the river in charge of an assistant harbour master, the chain got jammed on the windlass, the other was ordered to be let go, but this too got jammed, when the *Madeline Rickmers* was fouled by the barque *Angela,* the latter vessel striking the *Madeline Rickmers* on the starboard bow. No damage to the *Madeline Rickmers*. No loss of life.

26. The British Indian padow PADARETH [of Dwárka, Káthiáwár, 36 tons register, official number 1 of 1868], from Bombay to Mangalore, with a cargo of salt. The tindal stated that on the 29th January the weather was fine, but there was a heavy sea running from the N.-W., and for this purpose he was running into the Mangalore harbour on a strong ebb-tide, and getting caught in the eddies the padow grounded on the northern sand spit inside the bar near the old or Goorpoor mouth (Malabár coast). The crew after discharging the cargo got the padow off with little or no damage. No damage to the cargo. No loss of life. (It was reported that the casualty might have been avoided if the tindal had waited for the flood-tide.)

27. The British Indian muchwa DARYA MOWJEE [of Alibág, 12 tons register, official number 46, age 36 years], from Revdanda to Antora, with a cargo of jaggery. On the evening of the 30th January the muchwa met with high winds when near the Kundari island fort, entrance to Bombay harbour, it having suddenly freshened, the tindal tried to come to an anchor, when the muchwa capsized near the fort. She was afterwards recovered with little or no damage; cargo, worth ₹100, was lost, and the remainder were damaged. The crew were saved by swimming on shore.

FEBRUARY.

28. The British iron screw steamer CITY OF KHIOS [of Glasgow, 2,121 tons register, official number 78632], from Calcutta to London, with a general cargo. On the 1st February, the steamer in charge of a pilot was proceeding down the Hooghly river; at 3-40 P.M., it being high-water, the steamer was abreast of the Fulta flat buoy, where she passed the outward bound ship *Shelometh* in tow of the steam-tug *Sind,* and then shaped a course so as to pass two vessels to the southward of her, one the ship *Allumgheer* in tow of the tug steamer *Sestos,* and the other the S.S. *Pemba,* both outward bound, with a port helm in accordance with the Rule of the Road. The pilot of the *City of Khios,* on observing that the *Allumgheer* was keeping an easterly track, and the *Pemba* if anything a westerly one, and not wishing to pass one a-port and the other with a-starboard helm, and finding there was ample time to draw the attention of the pilot of the *Allumgheer,* she being distant about 1 mile, the *City of Khios's* steam whistle was sounded indicating her determination to adhere to the Rule of the Road, and so pass her with a port helm. The pilot of the *Allumgheer* stated that as soon as he sighted the *City of Khios* coming he went on the forecastle and directed the tug to keep out, and immediately after heard the steamer whistle, she being then about a mile off. He then ordered the *Sestos* to

put her helm a-port, and had pulled out to the westward and got straightened up channel course before the *City of Khios* passed, leaving room for another vessel to pass between her and the tug *Sestos*. The navigable channel of this part of the river was 2,200 feet wide and the tide was at its height, the steam whistle was kept blowing until the pilot saw the *Sestos* port her helm which was done so late that when the port quarter of the *Allumgheer* was barely clear of the *City of Khios's* hawse, the steamer's starboard side bilged on the flat below Fisherman's point at 3-45 P.M. The steamer was scraping along the flat and on the lead being hove from the starboard side a depth of a little less than 4 fathoms was found when the pilot was compelled to keep the helm amidships until the ship *Allumgheer* was clear of the steamer's hawse. The pilot subsequently starboarded heading into the channel and proceeded on her voyage without any further mishap. No damage to the steamer *City of Khios*. No cargo lost. No loss of life.

The Officiating Port Officer observed that, in this instance, a disregard of the Rule of the Road was shown as set forth under Article 21 of the Regulation for preventing collisions to the effect "that in narrow channels every steam-ship shall, when it is safe and practicable, keep to that side of the fairway or mid-channel which lies on the starboard side of such ship." The pilot of the *City of Khios* was warned that any neglect on his part in future to attend carefully to this most important particular of river navigation, will be severely dealt with.

29. The British Indian craft LAKISAR [of Ghorabaree, 29 tons register, official number 1002], from Keti to Kurrachee, with a cargo of rice, mats, and punkahs. The tindal stated that on the 3rd February the craft was proceeding to Kurrachee, and when about 1½ miles from the Gizree mouth of the river Indus (Sind coast), he met with a sudden squall, when at 6 P.M. the craft capsized. She was subsequently recovered with little or no damage. Cargo all lost, value ₹400. The crew, 7 men, and 7 passengers, were saved by clinging on to the punkahs, whence they were safely taken to shore.

30. The British iron screw steamer CHUPRA [of Glasgow, 1,432 tons register, official number 80431], from Calcutta to Bombay *viâ* coast ports, with a general cargo. The steamer left Calcutta on the 15th January, and after touching at several ports arrived at Cannanore on the 3rd February bound for Bombay with a general cargo. The master stated that there was light wind from the N.N.W., and the weather was fine, with a slight sea from N.N.W. The second officer was in charge of the vessel, the course they were steering was N.N.W., magnetic, and the steamer was going about 7½ knots an hour. The second officer stated that a pattimar (name unknown) did not show a light till within about 100 yards of the steamer. He put the *Chupra's* helm hard-a-port, but it was then too late to avoid fouling the pattimar. At 1-30 A.M. on the 5th February, when 13 miles to the westward of the Kárwár lighthouse (Bombay coast), the *Chupra* came into collision with the pattimar, the steamer's anchor davits caught the pattimar's sail, thus carrying away the latter's foremast. The master of the *Chupra* immediately after the accident stopped and reversed the engines, and a boat being lowered was sent in charge of the first officer to ascertain what damage had been done and whether they required any assistance. As soon as it was found that the pattimar had not sustained any damage the boat was hoisted up again, and the steamer proceeded on her voyage. No damage to the steamer or cargo. Damage to the pattimar not reported. No loss of life. (It was stated by the master of the *Chupra* that the collision was caused by the carelessness of the crew of the pattimar in not having exhibited lights.)

31. The British Indian iron steamer MOBILE [of Bombay, 916 tons register, official number 82278], from Bushire to Basra, with 69 passengers, and a general

cargo. It appeared that the steamers *Mobile* and *Arabia* both left Bushire at about the same time on the evening of the 3rd February on a passage to Basra. The *Arabia* was lying at anchor at the buoy, entrance to the Basra river (Persian Gulf), when the *Mobile* arrived, and finding the water not sufficient to cross the bar, she anchored also. At noon on the 4th, the *Arabia* entered the river, and half an hour afterwards the *Mobile* hove up and proceeded up the river; the *Arabia* when at Fao anchored, whilst the *Mobile* continued on her course, when at 2 P.M. it was observed that the *Arabia* was coming up at about 2 miles distant. At 4 P.M. the *Arabia* went abreast the *Mobile* on her starboard side, and both steamers were keeping the same speed. At 6 P.M. the master of the *Mobile* had the masthead and side lights put out; at 6-35 P.M. both steamers being abreast, the *Arabia* took a sheer across and fouled the *Mobile*, thus striking the latter's hull about the fore rigging, smashed her starboard life-boat, one awning stanchion and boat's boom, also damaged slightly another boat. After the collision the *Arabia* dropped astern and the *Mobile* proceeded on. The steamer was afterwards surveyed and docked in Bombay; the Surveyors reported that after a careful examination they found that no material damage had been done to the hull. The damage to the *Mobile* was estimated at ₹700, all other expenses excluded. No damage to the cargo. No loss of life. The *Arabia* had also sustained damage, but its extent and amount were not reported. (The Port Officer, Bombay, stated that neither the master nor the Agents gave notice of the accident to the S.S. *Arabia* although asked for by the Agents, and hence no particulars have been received in this Department.)

32. The British Indian wooden barque ABDOOL CADER HAMED BUX [of Negapatam, 154 tons register, official number not reported], from Maulmain to Negapatam, with a cargo of teak timber. It appeared that on the 4th February, it being high-water, the barque got underweigh in charge of a pilot from the Upper Anchoring creek at 6-30 A.M., with a light breeze from the northward, and proceeded down the Maulmain or Salween river without steam. The pilot said that when he arrived close to the Pool buoy at about noon the wind altogether failed, and as the vessel commenced to drift with the tide, which by this time was half ebb, he immediately took in sail and dropped the anchor in 4 fathoms water in mid-channel, but before the barque could be brought up she was drifted by the tide (which was setting to the S. W.) out of the channel and grounded on the Bheeloo-gywon sands, at the northern side of Bheeloo-gywon channel, entrance to Maulmain or Salween river (Burma coast). At about 5 P.M. the vessel floated off and was anchored in a safe berth for the night; the next morning the pilot got the barque underweigh and proceeded farther down the river, and on the 16th she was safely put out to sea. The barque remained perfectly upright all the time she was ashore, and she had therefore sustained no damage by the accident. She was aground for 10½ hours. No damage to the cargo. No loss of life.

[A Court of Inquiry was held at the Port Office, Maulmain, on the 22nd February by the Assistant Commissioner, Amherst Division, under Rule XXVII of the Maulmain Pilot rules, for the purpose of inquiring into the conduct of the pilot for having grounded the barque *Abdul Cader Hamed Bux* in the Maulmain river on the 4th February. The Court recorded that there being no evidence the pilot was called on to make his defence. The prosecutor stated that the barque *Abdul Cader Hamed Bux* having proceeded to sea, he had no witnesses to call for the prosecution. The Court observed that the evidence against the pilot was contained in his own report. The question was whether, with the wind light, the vessel should have been kept underweigh or anchored until the following tide or dropped down with the ebb-tide then running. The pilot alleged that he was sailing to the windward of the channels, and that when the barque got between the two red buoys at the northern entrance to the Bheeloo-gywon

channel the wind fell light, and the vessel drifted almost into the middle of the channel, when he let go the anchor in 4 fathoms in mid-channel. The pilot paid out 30 fathoms of chain, but the anchor did not hold, and a slight westerly wind having caught the vessel at the same time he ordered the sails to be furled, when she drifted on to the sands. He stated that the moment the wind fell light he furled the sails and anchored, but the anchor unfortunately dragged with 30 fathoms of chain out, and he was paying out cable when the barque took the ground. The channel at that part of the river was narrow and the ebb-tide sets on to the bank, where the accident occurred; it was a fair breeze when the pilot entered the channel, and the vessel was under full command till the wind fell light at about noon on the 4th February; the pilot said that he would have gone right out to sea if the wind had not fallen light when the barque was in the channel. He said that the reason why he did not let go the second anchor was because he was working a single anchor; therefore, it was not customary to let both go together; the anchor did not hold, as it was too small, it being one of those used by Coringa vessels—a class of vessels not possessing good anchors. The prosecutor stated that the accused joined the Maulmain Pilot Service in 1869, and was licensed to pilot Native vessels only under 18 feet draft. His license was once suspended for two months, that was in April 1881, for grounding the Burman kattoo *Kim Kong Hwat*. The Court, after having weighed all the evidence that was forthcoming, was of opinion that the barque *Abdul Cader Hamed Bux* grounded through the dragging of her anchor, and that it would have been useless to have dropped the second anchor with 30 fathoms out on the first. The dragging was attributed to a bad anchor; a good anchor in 4 fathoms water with 30 fathoms cable out ought to have held. The Court found that the pilot was not to blame for the grounding of the vessel which was accidental, he having exercised due care. The Court acquitted the pilot.]

The Commissioner of the Tenasserim Division confirmed the finding of the Court acquitting the pilot of blame.

33. The British Indian brig FUTTEHUL MONAN ROBIA [of Chittagong, 137 tons register, official number 5 of 1879], from Chittagong to Rangoon, with a miscellaneous cargo. On the 6th February the brig was proceeding down the Kornafuli river (Chittagong coast) without a pilot; at 2 P.M., whilst she was dropping down, the wind being strong from the southward, she came into contact with the barque *Meera Hossein,* which was lying at anchor abreast of Messrs. Determes & Co.'s rice mills, sheering about, being light, when the latter vessel's jibboom got foul of the brig's vang and broke it. The serang of the *Futtehul Monan Robia* hailed the barque's men to use the helm; but there being only one person (the bhundari) on board, the helm was not given. The brig's wheel, with stanchion and the vang, were carried away; estimated value not reported. No loss of cargo. No loss of life.

34. The British Indian wooden barque MEERA HOSSEIN [of Coringa, 563 tons register, official number 22 of 1876], from Coringa to Chittagong, with ballast. It appeared that on the 6th February the barque was lying at anchor nearly opposite Messrs. Determes & Co.'s rice mills in the Kornafuli river (Chittagong coast) ready to load a cargo of rice for Cocanada. At 2 P.M. the same day the brig *Futtehul Monan Robia,* whilst dropping down the river, fell across the barque's bows, thus coming into collision with her, carrying away the latter's jibboom and other head gear, the jibguys broken and the forecastle rail started; estimated value of damage R150. No cargo on board. No loss of life. (The casualty was unavoidable.)

35. The Native padow HURIPUSSA [of Cutch Mándvi, 85 tons register, official number 4348], from Mangalore to Bombay, with a general cargo. The tindal stated that on the morning of the 7th February the padow, whilst

proceeding out of the Mangalore harbour (Malabár coast), by the northern entrance, was caught in the eddies and grounded outside the old or Goorpoor river mouth, on the shore off the northern sand spit. She was subsequently lightened by discharging cargo, when at 5 P.M. she came off without any damage. Damage to the cargo not reported. No loss of life. (The casualty appeared to have been caused by eddy tide.)

36. The British iron screw steamer THOMAS TURNBULL [of Whitby, 1,332 tons register, official number 82661], from Cardiff to Aden, with a cargo of coals. The steamer proceeded from Cardiff on the 12th January, where she took on board a cargo of coals bound for Aden. She called at Port Said, but sailed from thence the same day. On the 6th February the weather being fine, the sea rough, the steamer was proceeding down the Red sea on a S.S.E. course with no sails set, going about 8 knots an hour. Nothing particular occurred until 5 o'clock on the following morning, when near Jebel Zukur island, in latitude 14° 05′ N., longitude 42° 47′ E., the master was informed by the chief engineer that the main crank shaft had broken in two, cause unknown. The master immediately anchored the vessel, and after repairing the damaged machinery, proceeded to Aden without any assistance. Value of damage to the machinery not known. No damage to the hull or cargo. No loss of life.

37. The British iron ship KISTNA [of Liverpool, 2,149 tons register, official number 87873], from Liverpool to Calcutta, with a cargo of salt. On the 8th February the ship in pilotage charge, and in tow of the steam-tug *Hunsdon*, was proceeding up the Hooghly river; at 10-20 A.M. while the tug was hauling into the Eastern Gut, James and Mary's, when nearly in the fairway track and to the southward of the *Waterloo* wreck buoy, the ship *Kistna* took the ground on the bank off Hooghly point. The port hawser parted, but the starboard one held on, and the ship, hanging for a few minutes, floated off, and after having passed another hawser, she proceeded safely up to town; the *Kistna* was perfectly upright, and was moving the whole time. No damage to the ship or cargo. No loss of life. (The casualty was unavoidable.)

38. The British iron steamer ENTERPRIZE [of Calcutta, 384 tons register, official number 50086] was employed as a tug steamer in the Hooghly river. It appeared that in the evening of the 7th February the *Enterprize* had been engaged to tow the barque *John Davie* up the Hooghly river, which vessel was lying at anchor a long way to the westward of the Intermediate lightship, Sandheads. On the following day at 3 A.M., the tide being flood, the steamer took the barque in tow. The master after proceeding for some time ascertained from the pilot of the *John Davie* how the Bell buoy bore from his vessel when at anchor, and after being informed that the bearing was N. by E., the steamer steered N.E. to get into the channel, when at 4 A.M. the master of the tug observed something close under the bow, the steamer's helm was starboarded to clear it, but the fluke of the starboard anchor unfortunately came into collision with the Bell buoy in the Eastern Channel, Sandheads, carrying away the basket. No damage to the tug *Enterprize*. No damage to the *John Davie*. Damage to buoy, ₹10. No loss of life. (The casualty was unavoidable.)

39. The Dutch iron screw steamer NEDERLAND EN ORANJE [of Amsterdam, 1,514 tons register, official number not reported], from Amsterdam and Bordeaux to Batavia, with a general cargo. The S.S. *Parramatta* reported that she passed the *Nederland en Oranje* at 6-5 P.M. on the 8th February about 60 miles S.W. of Minikoi island, in latitude 8° N. longitude 72° E. (Maldivhs), with the low pressure piston damaged, and asked whether she required any assistance, but she declined the offer, and said that she would be able to proceed in a few hours. On the 10th February, when off Point de Galle harbour, the master signalled that her low pressure cylinder was disabled; she was repairing it, and meanwhile proceeding on her voyage with the high pressure

cylinder working. Value of damage to the machinery not reported. No damage to the steamer or cargo. No loss of life. (No report of this casualty had reached this Department.)

40. The British iron screw steamer CALCUTTA [of Glasgow, 549 tons register, official number 67984], from Calcutta to Chittagong and Burman coast ports, with 150 passengers and a general cargo. The master stated that on the 10th February the course the steamer was going was E.N.E., and she was proceeding about 7¾ knots an hour. There was a light wind, and it was slightly hazy, the weather was overcast, and the sea smooth; the steamer was proceeding along the coast making for the Chittagong river. The third officer was in charge of the deck; he stated that it was a hazy night and the weather was overcast. The nakhoda said that his brig was at anchor off the South Patches, Kutubdea banks (Chittagong coast), with her riding light visible, riding to the flood; the weather was fine, and the night was a moonlight one. The *Calcutta* was coming round on her port helm, and at 8-15 that night the third officer sighted the brig's bright light about four points on the steamer's port bow. He said she was at anchor and heading about South, and the steamer was then going with steam only and no sails set. The nakhoda stated that the brig's crew on seeing the steamer approach blew the horn and raised a cry of warning, but all efforts proved unavailing to avoid the accident. The speed of the engines were never slowed or stopped, the helm was merely ordered to be ported; it was then too late, and a quarter of an hour afterwards the steamer came into collision with the *Sophia,* thereby doing considerable damage to her. The *Calcutta's* fore part of poop carrying away the brig's jibboom, martingale, figurehead, &c. The steamer's mail boat, which was carried on quarter davits, was carried away, also damaged the davits, the rails, and the awning stanchions abaft; value ₹1,300. The damage to the *Sophia, viz.,* ₹600, was paid to the owners of the brig as compensation by the Agents of the S.S. *Calcutta.* The steamer proceeded to the brig, and after ascertaining that she did not require any assistance she sailed on her course. No damage to the cargo. No loss of life.

41. The British Indian wooden brig SOPHIA [of Chittagong, 195 tons register, official number 19 of 1883], from Chittagong to Cochin, with a cargo of paddy and rice. The brig, it appeared, left Chittagong on the 9th February and proceeded down the Kornafuli river going safely to sea; on the following day she anchored off the South Patches, Kutubdea banks, in latitude 21° 32′ N., longitude 91° 30′ E (Chittagong coast). The nakhoda stated that the mate was in charge of the brig at the time, there was a good look-out kept, and that the brig was riding to the flood, and the weather was clear, the night being a fine moonlight one, with a breeze from the southward. The brig had her head to the southward, and the usual lights were properly fitted. On the night of the 10th, about ten minutes to 10 o'clock, the mate of the brig sighted the white and red lights of the S.S. *Calcutta* about four points on the starboard bow, steering on a N.E. course. The brig's crew on seeing the steamer approach blew the horn and raised a cry of warning, but all efforts proved unavailing to avoid the accident. The *Sophia* shortly afterwards was run into by the S.S. *Calcutta,* the latter vessel's fore part of poop carrying away the brig's flying jibboom, dolphin striker, martingale, jib shrouds, foretop-gallant stays and figurehead; and started the brig's upper part of stem and covering board along the forecastle for about 13 feet. Value of damage to the brig *Sophia,* ₹600, which sum was paid by the Agents of the S.S. *Calcutta* to the owners of the brig. No damage to the cargo. No loss of life. (No Court of Inquiry was held, but it was reported that the accident was caused by an error of judgment on the part of the third officer of the S.S. *Calcutta,* who was the officer in charge of the deck.)

42. The British Indian muchwa DASTAGHERI [of Mangalore, 10 tons register, official number 7 of 1883], from Mulpy to Mangalore, with passengers and a cargo of rice. The tindal stated that on the 10th February he attempted to enter the Mangalore harbour (Malabár coast) by the old or Goorpoor mouth at low-water, but having been caught in the current and in the eddies, the muchwa at 4 P.M. grounded on the northern sand spit outside the river. Through bumping she started two of her planks and filled with water; most of the cargo was washed out of her; the muchwa was subsequently recovered and safely brought inside the river, with little or no damage. Cargo worth ₹100 was lost, and the remainder were saved. The crew, 4 men, and 6 passengers were picked up and landed in fishermen's boats. (The casualty might have been avoided had the tindal entered the port on the flood-tide.)

43. The British iron screw steamer ASIA [of Glasgow, 1,139 tons register, official number 52586], from Madras and Gopalpur to Rangoon, with a general cargo. It appeared that whilst the steamer was lying moored at her buoy, off the Commissariat wharf in the Rangoon river (Burma coast), on the 12th February the S.S. *Avagyee,* in charge of a pilot, arrived up the river from sea, and at 3 P.M. the pilot in endeavouring to berth the vessel alongside Crisp street pontoon slightly fouled the S.S. *Asia* in consequence of the strong eddies, but doing no damage to the latter vessel. No damage to the cargo. No loss of life. (The casualty was caused by eddies.)

44. The British iron screw steamer AVAGYEE [of Glasgow, 247 tons register, official number 60431], from Mergui and Tavoy to Rangoon, with a general cargo. The master stated that the steamer had proceeded up the Rangoon river (Burma coast) in charge of a pilot. At 3 P.M. on the 12th February there was a strong flood-tide, the weather being fine, with a fresh breeze from N. W.; the pilot on arrival at town and finding the crowded state of the river above the Commissariat wharf, considered it imperative to round-to ahead of the S.S. *Asia,* and in endeavouring to berth the vessel alongside Crisp street pontoon caused the *Avagyee* to come into collision with the S.S. *Asia,* striking her slightly. Value of damage to the *Avagyee,* ₹50. No loss of cargo. No loss of life. (It was reported that the accident was attributed to the strong eddies that renders the approach to the jetty off Crisp street at all times difficult.)

45. The British Indian craft SALLAMATI [of Bánkot, 4 tons register, official number 3693] was lying at anchor at Bánkot with fishing nets on the bar. At 4 P.M. on the 13th February the steamer *Krishna,* whilst coming out of Bánkot river (Bombay coast), ran up against the *Sallamati* and sank her. She was afterwards recovered with little or no damage. No damage to the cargo. The damage to the steamer was not reported. The crew were picked up in a boat belonging to the steamer. (The collision was caused by the carelessness of the master of the *Krishna.*)

46. The Norwegian wooden schooner MARIA BERNER [of Stavanger, 260 tons register, official number not reported], from Calcutta to Port Natal, with a general cargo. On the 12th February the schooner, in charge of an assistant harbour master, was lying ebb a little below the Kidderpore swinging moorings, Hooghly river, ready to be transported to Garden reach preparatory to proceeding to sea under pilotage charge. The master stated that at 3 o'clock on the morning of the 13th he was on deck, and found that the fog was too thick for the schooner to start that morning. He then went on deck again at 7 A.M., but there was still a dense fog, and he could only see both ends of his vessel from amidships. The bell was rung by the assistant harbour master every five minutes. A little before the collision the fog was not quite so thick as it was at the moment of the casualty; it looked somewhat clearer, but at no time could the master have seen the shore or any other vessel. The

tide which was ebb was then running down at about 5 miles an hour. He stated that he saw the tug *Defiance* first when she was about 30 feet from the *Maria Berner,* coming end on to the schooner as the latter was heading up the river. At 8-30 A.M. the starboard anchor of the tug *Defiance* struck the *Maria Berner* at the mooring pipe, slid 4 or 5 feet and then stuck in the bulwark. The steamer *Defiance* was heading down and the *Maria Berner* up the river. The *Maria Berner's* bulwark, the topsail, the fore, the main, and the mizen rigging, the boatskids, &c., were carried away. The schooner dragged her anchor about 300 feet after the collision; the assistant harbour master paid out chain and anchored her right in the middle of the channel. The fog cleared about half an hour after when the tug also got clear and went away. On the 14th February the Surveyor of Shipping attended on board the schooner for the purpose of examining the damage done to her hull and rigging by being run into by the tug *Defiance* during a thick fog, she lying at anchor at the time off. Prinsep's ghât, the tide was about half ebb and the tug underweigh steaming down the river. The Surveyor reported that the anchor of the *Defiance* was sticking into the starboard bulwarks of the schooner. After carefully examining the damage, he recommended that the five pine planks of the bulwarks on the starboard side forward for about 10 feet in length broken in by the steamer's anchor, to be repaired and the planks renewed with proper shiftings; mooring-pipe started on starboard side forward, to be refastened; three chain plates of the starboard side forerigging bent and broken, to be taken out, straightened, welded, and refitted; 25 feet of the mainrail split on starboard side forward, to be renewed with pine or teak plank; 25 feet topgallant bulwarks split and injured on starboard side forward, to be renewed with pine or teak; 25 feet of topgallant rail split on the starboard side forward, to be renewed with teak; 34 feet of moulding outside the mainrail split and broken, to be renewed with teak; 30 feet of pine plank, to be renewed if split in taking out the old rail; 2 boat's skids broken and split, to be renewed by good pine or teak; one wooden batten laid on top of each skid, to be renewed each with pine or teak; moulding sides of skids, to be renewed with pine; 4 stanchions for skids, to be renewed with pine; the fair leader of the mainrigging broken, to be renewed with teak; the stanchions and the waterway seams started on the starboard side, to be caulked from break of raised quarter deck to bitts forward; the topgallantrail abreast the mainmast started, to be renewed with hard wood; the chain plates of main rigging bent slightly and the chain plates of mizen topgallant backstay bent, to be straightened; five shrouds of forerigging (hemp) on starboard side and two foretopmast backstays broken, each to be renewed complete with 6 inches Europe hemp and dead eyes turned in; the forebrace carried away, to be supplied with new Europe rope; the standing part topgallant halyards carried away, to be supplied and fitted with a new piece of wire; the lanyards of foretopgallant and royal backstays carried away, to be supplied with new ones; four shrouds of main rigging injured on starboard side, to be renewed and fitted complete as before; maintopgallant backstay (hemp) strained, to be renewed and fitted as before; three shrouds of mizen rigging injured and stranded on the starboard side, to be renewed and fitted as before; and iron stanchions of side lights bent slightly, to be straightened. The Surveyor further advised that if during the above repairs it was found necessary to split some of the other sound planks in taking out the damaged portion, then the same will have to be replaced, as if they were injured by the collision. The lower bolt of the chain plates being close to the water's edge it would be necessary to discharge part of the cargo so as to lighten the schooner and drive out those bolts. The work should be taken in hand at once with the consent of the Agents of the tug, as any further delay would entail an additional expense for demurrage upon the Agents of the steamer. Value of damage to the schooner and cargo, ₹3,400. No loss of life.

[A Marine Court of Inquiry was held at the Port Office, Calcutta, by the Officiating Chief Presidency Magistrate on the 25th, 27th, and 29th February, under Act XII of 1859, for the trial of the master of the *Defiance* (a licensed steam-tug pilot for the Hooghly river), who was charged with having through ignorance, negligence, carelessness, unskilfulness or other default in the performance of his duty, caused the steam-tug *Defiance,* of which he was in charge, to come into collision with the schooner *Maria Berner*. The Court recorded that the night before the accident the schooner *Maria Berner* took up a position near the Kidderpur swinging moorings, Hooghly river, and just below the Government dockyard. She was on her way to Garden reach in charge of an assistant harbour master, to wait for a pilot before proceeding to sea. On the morning of the 13th February there was a dense fog on the river where the schooner was lying. The witnesses from on board of her stated that the fog had never actually lifted up to the time of the collision, which took place about 8-30 A.M. They admitted that some little time before the collision the fog did for a brief period become less dense, as if it were about to clear off. When the tug was first seen by those on board the schooner she was within 100 feet, coming almost end on; no sound of paddles or other noise having been heard on board the latter. The tug would have gone clear, but for the fact that her starboard anchor, which was ready to let go, off, caught in the bulwarks of the *Maria Berner*. The tide, which was running down, caused the tug to swing round, and in doing so the bowsprit carried away the fore, the main, and the mizen riggings; portion of the bulwarks was carried away by the gear under the bowsprit, and some other damage was also done. The tug slackened chain and left the anchor sticking in the side of the *Maria Berner* and dropped astern. The anchor was afterwards unshackled. The assistant harbour master stated that at the time of the collision he was actually ringing the fog bell, and that the bell had since, about 6 o'clock, been rung at intervals of 4 or 5 minutes. The Court observed that there was no evidence to show that the schooner had not taken up a proper and safe berth the night previous. On the contrary, it was in evidence that the berth was a proper and safe one. The collision caused the schooner to drag out 300 feet, and when the fog cleared off it was found that she had shifted her position into the middle of the channel. No formal statement was made by the accused pilot, but in addressing the jury upon the evidence, he put forward his own story. He stated that there had been a heavy fog in the morning, but that about 8 o'clock it cleared away where the tug was lying at No. 5 swinging buoy off Fort point; that the fog had been a continuously dense one, and not as if rolling up in strips; and when it cleared off for the first time, he came to the conclusion that it cleared off entirely; that accordingly he gave orders to let go and proceeded down the river; that the both banks of the river were visible, as it was clear both above and below his position; that after leaving the moorings the tug proceeded down on the tide with engines going *dead slow;* that after going down a short distance the fog suddenly rolled up again, more dense than ever; that when the fog came up again he ordered the mate to stand by the anchor which had been got ready, but that before he had time to anchor the *Maria Berner* suddenly appeared in sight quite close; that he did all in his power to avoid a collision, and would have cleared the schooner but for the anchor, which was ready to be let go, catching in the bulwarks of the schooner. This story was borne out in the main by the other witnesses who were called for the defence. The pilot (master of the *Defiance*) stated that he heard no bell, and the master of the schooner admitted in cross-examination that at the time of the collision he heard some one shouting out from the tug "why don't you ring the bell." The question for the jury to consider was whether, in acting as he had done, the pilot in charge of the *Defiance* was guilty of negligence, carelessness, un-

skilfulness, or other default. If he were justified in casting off from the buoy, then there was a further question whether he had proceeded down with proper precaution. The evidence for the defence was that the fog had cleared off round the position where the *Defiance* was lying. On this point the evidence of the Officiating Harbour Master was important. He left the Hooghly bridge at 7-30 A.M. in a steam-launch, and slowly picked his way down in the fog till he got to Prinsep's ghât, which he reached at 8-30 A.M. He stated that the fog never cleared off at any time on his way down; and that in his opinion it would have been safer for the tug to have dropped down on her anchor. If the tug proceeded down the river in the fog, or before there was reasonable ground for believing that the fog had lifted for the day, the pilot in charge was undoubtedly guilty of carelessness or negligence. The Court observed that the jury found that in casting off from the buoy he was not guilty of any of the charges; but they expressed an opinion that in proceeding down the river as he did, he committed an error of judgment not amounting to negligence, carelessness, or unskilfulness. In the Court's opinion the verdict was perfectly fair on the evidence. It was fully justified if the jury accepted the evidence put forward by the defence. The Court accordingly accepted the verdict and acquitted the pilot.]

The Officiating Port Officer concurred so far with the jury that the master of the steam-tug *Defiance* committed an error of judgment, but was of opinion that the error was one of sufficient gravity as to be classed under the category of *other default* mentioned in the charge, and of which he considered the pilot should have been found guilty.

The Lieutenant-Governor of Bengal observed that the pilot having been acquitted by the jury, and the Judge having accepted their verdict, he desired to make no remarks on the case.

47. The British iron paddle steamer DEFIANCE [of Calcutta, 222 tons register, official number 41,003] was employed as a tug steamer on the Hooghly river. It appeared that on the morning of the 13th February at 8 o'clock, the mate of the *Defiance* was on board forward on the forecastle head and the serang was also with him; the atmosphere was clear at the time. The tug was at No. 5 swinging buoy off Fort point in the Hooghly river. He stated that the master had given orders to unmoor the vessel; that after casting off he was ordered to get the anchor ready, but when the fog came on the order was countermanded, and the master told him to stand by the anchor. The steamer was steaming but was drifting down with the tide, and therefore had hardly any way on. The mate stated that when he first saw the *Maria Berner* she was four points on the starboard bow, not even 60 yards off, and that he heard no noise or bell on board the schooner. The tide was ebb, and was not a very strong tide; it was running at about 3 miles an hour. At 8-30 A.M. the tug's anchor unfortunately fouled the schooner, which was lying at anchor just below the Government dockyard at Kidderpur; the cathead just touched the topgallant rail. He stated that after dropping astern he went on board the *Maria Berner*, unshackled the tug's cable, and left the anchor in the *Maria Berner's* bulwarks. Slight damage to the *Defiance*. No loss of life.

48. The British iron screw steamer BAGHDAD [of Glasgow, 809 tons register, official number 65600], from Rangoon to Calcutta *viâ* Burman coast ports, with a general cargo. It appeared that the *Baghdad* was riding at anchor, quite steady and not sheering about at the time of the casualty below the Hastings' buoy in the Rangoon river, Burma coast. The night was a bright moonlight one, the masthead light of the steamer was burning clearly, and there was a strong flood-tide running. The second officer of the *Baghdad* stated that he was on watch from midnight of the 12th February to 4 o'clock of the following morning. At about 2 o'clock on that morning he observed the red light of the

barque *Osaka* in tow of the tug steamer *Salween* alongside well on the port bow of the S.S. *Baghdad.* He stated that he went aft to report to the master that the barque was approaching the steamer, or rather to call the pilot who was sleeping aft on the transom below near the saloon entrance. He heard an order given on board the *Osaka* hard-a-port, whilst he was on the starboard side and ran forward, intending to go on the bridge again, when he felt a collision before he reached the bridge. The *Osaka's* anchor fouled the *Baghdad's* cabin on the port side. He heard the order given several times from the barque hard-a-port which made him go back towards the bridge to see what could be done. The second officer stated that he had no idea that the *Osaka* was so close to the *Baghdad,* nor did he anticipate the chance of a collision. The master was sleeping in a cabin on the bridge, and he saw no necessity for calling him as a pilot was on board waiting for daylight to take the steamer out to sea. The *Baghdad* damaged her boats, the plates in topsides, &c.; estimated value ₹2,000. No loss of cargo. No loss of life.

49. The British composite barque OSAKA [of London, 527 tons register, official number 60965], from Hong Kong to Rangoon, with 215 tons stone ballast. It appeared that during midnight of the 12th February the barque, in charge of a pilot, started from Bassein creek in the Rangoon river (Burma coast), the night being clear and fine, in tow of the steam-tug *Salween* on the starboard side, and proceeded up the river. At 2 o'clock on the following morning, it was flood-tide and it was running strong, the pilot in endeavouring to pass under the stern of the S.S. *Baghdad,* the barque refused to answer her helm, although it was put hard-a-port in ample time for the latter vessel to have gone clear. Half an hour afterwards the *Osaka* came into collision with the S.S. *Baghdad,* which vessel was lying at anchor off Hastings' buoy, leaving her port anchor hooked into one of the steamer's cabin ports; consequently the barque's chain parted, carrying away five planks on the port bow of the *Osaka.* Value of damage to *Osaka,* £200. No cargo on board. No loss of life. (The pilot reported that the only reason he could give for the accident was that the *Osaka* must have been caught in a strong eddy-tide, and consequently would not obey her helm as the barque had been steering very well all the way up until the casualty.)

[A Court of Inquiry was held in the District Magistrate's Court, Rangoon, on the 20th February under Rule XXIV of the Rangoon Pilot Rules, to investigate the circumstances relative to the collision between the British barque *Osaka* and the British S.S. *Baghdad.* The Court were unanimously of opinion that the collision was the result of an accident, and could not have been avoided. The Court accordingly acquitted the pilot of all blame.]

The Chief Commissioner of British Burma confirmed the finding of the Court acquitting the pilot of blame.

50. The British wooden ship WHITE ROSE [of London, 1,557 tons register, official number 69624], from Chittagong to Cochin, with a cargo of paddy and rice. On the 14th February the ship, preparatory to proceeding down the Kornafuli river, in charge of a pilot, cast off from the mooring buoy; at about 10 A.M., with the tug steamer *Albert* fast alongside, the vessel proceeded to sea against the flood and with a strong southerly wind, the weather being cloudy at the time. All went well until passing over the Gupta khali crossing, when near Juldia the wind had caused the sea to rise so much so that it was found impracticable for the tug to continue towing alongside; a tow rope was passed to the steamer, and the vessel again proceeded in tow, the tug being ahead. On the ship passing over the Juldia bar the semaphore indicated high-water, and the pilot seeing that the tug could hardly move the vessel against the strong winds, the weather being squally, and that the tide was rapidly falling, he ordered the ship to be turned round and taken to the Juldia anchorage. The vessel was accordingly turned round safely and brought to the anchorage,

when the pilot directed the anchor to be dropped; the anchor was let go, but by some cause, not known, the devil's claw—a large iron claw hook used for holding the chain—fouled the cable and prevented the chain from running out; the strong South wind, which was astern of the vessel, drove the *White Rose* up past the anchorage before the chain was cleared and the ship brought to a stand-still by her anchor. The tug then cast off the tow rope in spite of the pilot's orders, and the rope getting drifted across the bows of the ship fouled both anchors. The pilot, however, directed the chain to be hove in and the vessel dropped down to a safe anchorage, but this latter order was not done on account of the wind, so the steam-tug commenced towing the ship astern when the tow rope parted; another was given, the crew in the meantime were busy trying to clear the anchors from the tow rope which was first cast off by the steamer, but did not succeed. The second tow rope parted, and as the anchors could not be used, the ship *White Rose* sheered and took the ground at 5-30 P.M. on the bank off Juldia anchorage, Kornafuli river (Chittagong coast). On the flood-tide making the ship with the help of the steamer floated off, having been 4 hours aground, and was safely anchored in deep water. Value of damage to the *White Rose,* ₹350. No cargo lost. No loss of life.

[A Departmental Committee of Inquiry was held at the Port Office, Chittagong, on the 27th February, to inquire into the conduct of the pilots of the tug steamer and of the ship *White Rose,* whereby the latter vessel grounded off the Juldia anchorage on the 14th February. The Committee recorded that, after having carefully perused the reports of the pilots and that of the first officer (who was in charge of the vessel) in this case, they visited the ship to glean the facts from the crew (the ship *White Rose* grounded unfortunately on a soft bank and received no serious damage, and had since sailed for her destination). The Committee were of opinion that the primary cause of the accident was due to the persistency of the pilot (who was in charge of the steam-tug *Albert*) in attempting to tow the *White Rose* past the Juldia anchorage, although he saw that it was then high-water. He in his report stated that he hoped the strong Southerly wind which was then blowing would have kept the tide up; this idea was absurd, as he saw that the tug was hardly moving the ship against the strong wind, and at the rate the *Albert* was towing the vessel she would certainly have taken three to four hours to have passed over the bar into a safe anchorage. The crew of the ship *White Rose* were to blame for not having seen that the chain was all clear, as they admitted that they received orders from the pilot to do so, and reported it clear, for had the chain been kept clear, the accident would not have happened. The pilot of the tug was, in the Committee's opinion, greatly to blame for having cast off the tow rope before the pilot of the *White Rose* ordered him to do so, or before it was shortened in. He could not know how the men were employed on board the ship, and the Committee had no doubt that they were all employed trying to get the chain clear; it was very easy to write, as the pilot had done, in his report that he shouted to them to do this, and that but he knew perfectly well that merchant vessels were very lightly manned now-a-days considering their size, and that it required time to get sails hoisted and ropes hauled in. The pilot had by casting off the tow rope (which drifted across the bows of the *White Rose* and thus fouled her anchors) virtually rendered the ship unmanageable. The Committee were of opinion that this casualty could easily have been avoided had the pilots in charge of the ship and of the steam-tug been more careful. They considered the former to blame for having allowed the latter to have continued towing after he had asked him to anchor off Juldia. The pilot of the *Albert* seemed to have acted in a manner altogether unusual for him, and by his neglect in having disregarded the state of the tide; the strong wind that was blowing was the primary cause of the *White Rose* being taken into danger,

for had the ship been brought up head to wind when going out, no doubt the accident would not have occurred, as the tug would have been ahead holding the vessel against the wind, and the chain, if it had fouled, could have been cleared at leisure. The Committee remarked that a European pilot would not have hesitated to have cut the tow rope if a steamer persisted in steaming after he had ordered her to be brought up. The Committee recommended that the pilot of the steam-tug *Albert* forfeit a week's pay, and that the pilot of the *White Rose* be severely reprimanded.]

The Commissioner of the Chittagong Division accepted the finding of the Departmental Committee of Inquiry.

51. The British Indian wooden barque SUFFINATHOOLAH [of Negapatam, 299 tons register, official number 10 of 1880], from Rangoon to Negapatam, with 30 Native passengers and a cargo of teak timber. On the 15th February the barque in charge of a pilot weighed anchor at 7 A.M. and proceeded down the Rangoon river (Burma coast) to cross the Hastings' shoal at high-water with a light breeze, but when nearly over the wind failed, and the pilot having hove the lead found that the vessel was in six fathoms of water, and the ebb-tide having made she gradually went near the bank. On the first cast of the lead the pilot ordered the anchor to be let go, but the master of the barque, contrary to the pilot's instructions, ordered the crew to brace the yards, thus keeping her on the port tack; the master at the same time informed the pilot that there was plenty of water for the vessel to float in. Whereupon the pilot pointed out to the master the necessity of obeying his orders, but the master appeared to have taken no notice of it. By the delay thus caused the barque grounded at 10 A.M. on the Liffey sands. At 4 P.M. she floated off after being aground six hours. No damage to the barque or cargo. No loss of life. (It was reported that this accident occurred through the negligence of the master of the *Suffinathoolah,* who persistently issued orders contrary to the pilot's instructions.)

[A Court of Inquiry was held by the District Magistrate in the Deputy Commissioner's Court, Rangoon, on the 3rd March, under Rule XXIV of the Rangoon Pilot Rules, to investigate the circumstances connected with the grounding of the barque *Suffinathoolah* on the Liffey sands. The prosecutor reported that as the vessel was outward bound, and had proceeded to sea, it was difficult to obtain evidence as to the cause of this accident. The Court, after perusing the pilot's report and other papers on the subject, observed that the vessel having left the port of Rangoon there was no evidence of any description to be brought before it. Under these circumstances the Court found that no fault of any description had been proved against the pilot. He was therefore acquitted.]

The Chief Commissioner of British Burma confirmed the finding of the Court acquitting the pilot of blame.

52. The British iron ship CENTURION [of Glasgow, 1,194 tons register, official number 60365], from Calcutta to Havre, with a general cargo. It appeared that the ship was lying at No. 6 Hastings' moorings, third berth, in the Hooghly river, and had just commenced loading a general cargo for Havre. At 10-30 o'clock on the night of the 15th February a fire broke out in the forehold of the vessel amongst some bales of cotton. An alarm of fire was given, when at about midnight the Deputy Conservator of the Port and the Harbour Master arrived on board. All openings were closed, and the Port Commissioners' fire-engine being alongside, delivered steam from her boiler into the hold of the burning vessel. This remedy not proving effectual was changed at once and the pipe laid on from the carbonic acid attachment; expended 10 canisters, when to all appearance the fire was got under, and waited for daylight to open out the hatches. After the smoke and gas had escaped, and the moment it was possible, men were sent down the hold, who on moving the top bales found

that the fire was still raging in the ground tier, blazing out as each bale was removed, but it was kept well under control. All signs of fire were extinguished by 8-30 A.M. on the following morning. The *Centurion* was a large vessel, the hold nearly empty, with only 282 bales of cotton and 250 tons sand ballast, consequently occupying a very small space in such a large hold. The small number of charges used were not sufficient to fill the large vacuum and the premature opening of the hatches caused ventilation to assist what sparks that remained in the cotton bales to spread, which was the true cause of the carbonic acid gas not efficaciously quenching the fire; nevertheless the acid, although not having a fair trial, was the means of getting the fire under control, if not effectually extinguishing it. The Surveyors reported that on the afternoon of the 16th and on the morning of the 19th February they proceeded on board of the ship *Centurion,* lying in Hastings' moorings, in order tc make a survey on the damage which that vessel sustained by the fire which occurred in the forehold amongst a number of bales of cotton. After a careful survey it was found that the fire originated in the port side, about 6 feet abaft the foremast at the bilge, and extended forward as far as the forward part of the fore hatchway, partly damaging 74 bales of cotton and burning the ceiling of the ship from the fourth sparring batten above the close ceiling down to the plank below the floor keelson. The Surveyors recommended that the close ceiling be removed to the original butts from the collision bulkhead to about 40 feet abaft it, except a few short lengths forward; four lengths of sparring batten be also renewed to their original butts; the cement which was raised off the plates by the heat in three places abreast of the main chain locker, to be renewed. They reported that it was not necessary to renew the close ceiling at Calcutta, as such renewal would interfere with the loading and detention of the vessel, but the frames must be covered with rough boards to keep the cargo off the side, and the sparring battens should be renewed there. The paint on the tween-deck stringer plate, over the position where the fire occurred, was blistered and destroyed, and the decks blackened and dried up, leaving the seams a little wide. The paint on the fifth sparring battens above those that were burned was also blackened; these places should all be cleaned and painted either at Calcutta or when the vessel arrived Home. The paint in the 'tween-decks of the plates, angles, beams, decks, and sparring battens, which were cleaned and painted on the passage from the Rio de la Plata to Calcutta, was discoloured and injured by the smoke and by the steam put into the hold to subdue the fire; from the forward collision bulkhead right aft should be again cleaned and painted either before the vessel left on her voyage from Calcutta or when she arrived Home. The paint of the lower hold from the main hatchway forward to the collision bulkhead was also more or less discoloured by the smoke, and should be cleaned and repainted when the ship arrived Home. A quantity of dunnage wood and mats were burned and rendered useless by water and fire; the fore and maintopsail down-hauls were broken whilst swinging the yards during the fire, and must be renewed; 208 bales of cotton were damaged by water put into the hold to extinguish the fire. Value of damage to *Centurion,* about ₹3,500; cargo, ₹13,400. No loss of life. (The cause of the fire was not known, nor was any Court of Inquiry held into the matter.)

53. The British iron screw steamer ASTON HALL [of Liverpool, 2,333 tons register, official number 86250], from Liverpool to Calcutta, with a general cargo. On the evening of the 15th February the steamer proceeded up the Hooghly river in charge of a pilot, and at Garden reach was boarded by an assistant harbour master, who moored her in the stream with two bower anchors off No. 5 Hastings' moorings with 30 fathoms each way to ebb and flood about her own length from the moorings late on the same evening. The *Aston Hall* on swinging flood at 1-30 A.M. on the following day stern to the westward, her heel took

the bank on the Howrah side of the river opposite Prinsep's ghât; she subsequently dragged her bower anchors and drifted higher up the river where she remained on the bank until the tide slackened; at 4 A.M. steam was got up and the engines were started ahead full speed, when she was successfully floated off, having been aground for 3½ hours; at daylight she was transported up the river and placed in her berth at No. 1 jetty. The *Aston Hall* while drifting was, with the strength of the tide, forced over No. 1 swinging mooring buoy which she damaged and sunk. The mooring of the buoy was afterwards recovered and the buoy replaced in position. No damage to the steamer or cargo. Value of damage to the buoy not reported. No loss of life. (It was reported that the accident was caused by the assistant harbour master having misjudged his distance from the mooring owing to the late hour and having placed her a little too far to the westward, and in consequence of her great length and heavy draft, when swinging to the westward, her heel took the bank, thereby preventing the steamer from swinging fair to the flood-tide and dragging the anchors home.)

54. The British iron screw steamer CARMONA [of Dundee, 2,447 tons register, official number 82742], from London to Calcutta, with a general cargo. On the 15th February the steamer proceeded up the Hooghly river in charge of a pilot, and at Garden reach was boarded by an assistant harbour master, who moored her with two anchors late on the same evening abreast of No. 5 Hastings' moorings, as near as possible in mid-channel, so as to allow of good swinging room both ways. The *Carmona* on swinging flood at 1-30 A.M. on the following day stern to the westward, her heel took the bank on the Howrah side of the river opposite Prinsep's ghât moorings, and she subsequently dragged her anchors and drifted higher up the river; she remained on the bank until the tide slackened at 4 A.M. when she was successfully floated off after having been aground for 3½ hours, and at daylight she was transported up the river and placed in her berth at No. 6 jetty. No damage to the steamer or cargo. No loss of life. (It was reported that the casualty was caused by the assistant harbour master having misjudged his distance from the mooring owing to the late hour and having placed her a little too far to the westward in consequence of her great length and heavy draft, so that when swinging to the westward, her heel took the bank, thereby preventing the steamer from swinging fair to the flood-tide and dragging the anchors home.)

55. The British Indian brig BINGA FOTAL CHOWALA [of Chittagong, 43 tons register, official number 50], from Bongsir chur to Chittagong, with a cargo of lime, moong, sugar, &c. The tindal stated that on the 23rd February, when near the Shekander khal, in the Jalchira river, mouth of the Megna (Sunderbuns), the brig suddenly sprung a leak owing to bad caulking; at 6 P.M. the pumping arrangements being insufficient the tindal brought her inside a khal for safety. She was finally repaired and sustained damage to the amount of ₹100; cargo worth ₹750 was lost, and the remainder were saved. The crew, 8 men, safely got to shore.

56. The British iron screw steamer ADRIA [of Bombay, 781 tons register, official number 68495], from Mauritius to Bombay, with 88 passengers and a cargo of sugar. It appeared that the steamer had arrived from Mauritius all well on the 23rd February off Bombay. At about 4 P.M. on that day, when off the Pilots' station, entrance to the Bombay harbour, the engines were stopped and reversed for the purpose of receiving a pilot on board. At 4-30 P.M. she got a pilot, and on trying to move ahead the engines would not work, and having a leading wind all sails were set. The high pressure cylinder cover was at once opened, and it was found that the piston was broken. The engineer afterwards reported to the master that the breakage of the piston junk ring and packing ring were caused by a broken junk ring bolt coming between the piston

and the cover. The steamer sailed to within the limits of the port, and thence was towed safely into moorings. The Engineer Surveyor to the port of Bombay stated that after the completion of her repairs, the master made no report, but the vessel's machinery had subsequently been put in thorough repair; estimated cost of repairs ₹1,200. No cargo damaged. No loss of life. (The casualty was unavoidable.)

57. The British Indian iron paddle steamer RELIANCE [of Calcutta, 216 tons register, official number 20765], from Calcutta to Chandbáli, with 20 passengers and a general cargo. It appeared that on the 23rd February the steamer was proceeding down the Hooghly river in charge of the master (who was also a pilot for the river Hooghly); at 3-30 P.M. the weather was fine, the wind calm, and the sea smooth, and in the river it was low-water, the steamer when in the Eden channel, abreast of the Upper Eden channel buoys, met with an accident to her machinery by the intermediate crank pin having broken. She was proceeding at full speed, and apparently everything was working in perfect order. The master, as soon as the accident happened, immediately anchored with port bower and 30 fathoms cable out, and on the following morning despatched a telegram to the owners for assistance, who at once sent the steam-tug *Sestos,* which arrived the next day and went alongside and made fast and anchored. On the 26th the steamer *Reliance* weighed and proceeded in tow of the *Sestos,* and having made fast to No. 18 swinging buoy, the tug was cast off. The *Reliance* subsequently discharged her cargo and passengers and underwent repairs. No damage to the steamer. Value of damage to the cargo not reported. Value of damage to the machinery, ₹400. No loss of life. It was reported that the cause of this casualty was unknown.)

58. The British iron screw steamer WINCHESTER [of London, 1,435 tons register, official number 87047], from Glasgow to Bombay, with a cargo of coals. On the 23rd February the steamer grounded on a shoal in the Red sea, about 39 miles N.N.W. of Perim island, remained aground two hours and then came off. She arrived at Bombay on the 2nd March, and the master, without giving notice of the accident to his vessel, which occurred near Perim, to the Port Officer at Bombay, requested the Agents to make arrangements to have the steamer put into Dry dock, which was accordingly done. On the 11th March Lloyd's Surveyor reported that he examined the bottom of the S.S. *Winchester,* as she laid in the British India Steam Navigation Company's graving dock at Mazagon, to ascertain whether any damage had been caused through the grounding in the Red sea on her passage to Bombay. On referring to the log-book it was found that the steamer had struck on a shoal about 30 miles N.N.W. of Perim island, and remained on the ground two hours and then came off. The Surveyor reported that the vessel lay fair on the blocks, and the bottom was perfectly dry; there were no signs of leaking at any of the rivets in the butts or landings, and that the bottom had received no damage whatever, with the exception that some of the paint was rubbed off. It was recommended that the bottom should be coated with two good coats of paint. The propeller was found to be in good condition. The Surveyor reported that the S.S. *Winchester* was in perfect order, well found, seaworthy in every respect, and fit to carry a dry and perishable cargo to any part of the world. The *Winchester* left Bombay on the 21st March with a general cargo for Marseilles. Value of damage to the steamer not reported. No cargo damaged. No loss of life. (It was reported that the casualty was caused by the carelessness of the master. He neither reported the mishap to his steamer to the Port Officer, Bombay, nor did he make any application for survey of his vessel.)

59. The British Indian padow DARIA DOWLAT [of Bombay, 31 tons register, official number 3531], from Bombay to Dholera, with a cargo of rice, copra, dates, &c. The tindal stated that on the 24th February he anchored the

padow off Dholera in the Gulf of Cambay; in the meantime the ebb-tide ran out, and when the flood made it washed away the sand from under her, and at 10 P.M. she fell on her side on to a sand bank and capsized. The crew in order to lighten her jettisoned a considerable portion of her cargo, after which she was successfully righted. Value of damage to padow, ₹100; cargo worth ₹874 was lost, and the remainder were saved. No loss of life.

60. The Italian wooden barque OTTONE [of Genoa, 610 tons register, official number not reported], from Table Bay to Maulmain, with ballast. On the 24th February the barque was proceeding up the Salween or Maulmain river under pilotage charge with a S. W. by S. breeze. When rounding the Upper Bheeloo-gywon buoy to the Pool channel the wind hauled round suddenly to S. E., catching the vessel aback, which caused her to drift to leeward of the channel; as the water shoaled the pilot let go the anchor and paid out chain, and after having brought her up took soundings and found $2\frac{1}{2}$ fathoms. The vessel drifted considerably before she was brought up, when the pilot clewed up the light sails. The wind hauling to the S. W., the pilot hove short and cast the barque to starboard; but before gathering headway the ebb-tide had commenced, the wind being variable, thus prevented the pilot from getting into deep water when, at 3 P M., the *Ottone* took the ground, near the No. 8 red buoy, on the Bheeloo-gywon sands in the northern entrance of the channel. The pilot immediately clewed up all sails and ran out the kedge anchor for the purpose of getting her off, and hove taut; the vessel remained in that position until midnight, when she floated off; the pilot then hove up the kedge anchor, made sails, and proceeded into deep water. The following day the pilot weighed anchor and proceeded safely up the river to the town (Maulmain), and was moored in the Mopoon bight. She was aground for 9 hours. No damage to the barque or cargo. No loss of life.

[A Court of Inquiry was held at Maulmain on the 12th March in the Assistant Commissioner's Court, under Rule XXVI of the Maulmain Pilot Rules, to inquire into the conduct of the pilot for grounding the barque *Ottone*. The Court recorded that it was explained to the pilot that the Court having assembled under Rule XXVI, was to a certain degree an informal Court owing to no merchant being present. He was asked whether he objected to the Court being constituted as such, and stated that he had no objection to the Court as constituted. The pilot said that the grounding occurred between the neaps and the springs a few days before full moon. The barque was sailing with a fair wind, and the pilot had not time to anchor before, for the wind only shifted just as she got to the red buoy No. 9, which was bearing about East or E. S. E., and was distant about two cables' length off. He stated that the crew obeyed orders, and were sufficient to work the ship, and that the orders were given in English to the master of the barque, who repeated them to the crew in Italian. The pilot stated that he would not have held on, but that he felt certain of weathering of the buoy but for the change of wind. The Court, after hearing all the evidence that was brought forward in this case, were of opinion that the barque *Ottone* grounded owing to the change of wind, the tide ebbing, and that no blame could be attached to the pilot, who seemed to have acted with all due care. The pilot therefore was acquitted.]

The Commissioner of the Tenasserim Division approved of the finding of the Court acquitting the pilot of blame.

61. The British Indian muchwa SUMBHAL [of Rái, 5 tons register, official number 2065], from Manori to Naughur, with no cargo on board. The tindal stated that on the 24th February, when about 200 yards to the N.W. of the Kaman creek, Bassein river (Bombay coast), all the crew, with the exception of the man at the helm, were taking their meals when a sudden gust of wind caught the sail of the muchwa and capsized it. She was after-

wards recovered with little or no damage. The crew, 4 men, were picked up in boats sent from Ghodbandar.

62. The British Indian muchwa KHENGTY [of Ratnagiri, 10 tons register, official number 10492, age 58 years], from Nágothna to Bombay, with a cargo of firewood. On the 25th February the muchwa grounded on a shoal near Jambooltep in the Nágothna river (Bombay harbour). She was subsequently recovered, and sustained damage to the amount of ₹160. Slight damage to the cargo. The crew, 6 men, swam to the shore. (The casualty was caused by the carelessness of the tindal.)

63. The British Indian padow LAXMEE PRASÁD [of Matvád (Gujarát), 45 tons register, official number 1349, age about 28 years], from Padani to Dholera, with a cargo of sagli wood. At 12 P.M. on the 25th February the padow struck upon a sand bank off Dholera, in the Gulf of Cambay, and heeled over on her side; a portion of her cargo was jettisoned in order to lighten her, when, as the tide rose, she righted herself and floated off. Value of damage to padow, ₹300; cargo ₹150. No loss of life. (The casaulty was caused by the carelessness of the tindal.)

64. The British iron screw steamer HUZARA [of Glasgow, 1,344 tons register, official number 82297], from Calcutta to Bombay, with a general cargo. It appeared that on the 26th February the steamer, after having taken a pilot on board, had proceeded up the Bombay harbour; the weather was fine with light northerly winds, and the tide was running flood. The pilot being compelled to go a little too far inshore to avoid a collision with a coal barge before letting go the anchor, the vessel touched the bottom on Cross island reef; the Middle Ground bearing S. by W. and the Castle flagstaff S. W. by W. The steamer laid aground for about three-quarters of an hour, when she floated off by the aid of her own steam. No damage to the steamer or cargo. No loss of life.

[A Departmental Committee of Inquiry was held at the Port Office, Bombay, on the 27th February, for the purpose of inquiring into the circumstances attending the grounding of the S.S. *Huzara*. The Committee recorded that from the evidence adduced by the master of the steamer and the pilot—the only evidence that was required to be taken—it was of opinion that the pilot was much to blame in attempting to bring the vessel to the British India Steam Navigation Company's C buoy in the manner he did on the first of the flood-tide. Had he anchored the S.S. *Huzara* when clear of D buoy, and waited till the S.S. *Arabia* had left the C buoy, the accident would not have happened. The Committee observed that the pilot did not ask the master for the *Huzara's* draft of water when he boarded the steamer, and he seemed to have considered that, owing to her appearing light, she was not drawing so much water as she did. Had the pilot asked for the draft, the Committee were of opinion that he would not have stood so close into the reef, and it felt quite confident that the pilot was well aware of the depth of water he was standing in. The pilot was therefore considered to have committed an error of judgment, inasmuch as he failed to ascertain the vessel's draft of water on going on board in accordance with Rule 60 of the Bombay Pilot Rules. The Committee recommended that as the vessel had not sustained any damage the pilot be severely reprimanded.]

The case was submitted to the Trustees of the port of Bombay with a report from the Agents of the vessel, showing that as no damage had been done to the steamer, the pilot be reprimanded. The Trustees, after perusing the minutes of the members of the Harbour and Pilotage Committee, directed that the pilot be fined ₹50.

65. The British wooden schooner MYVANWY [of Liverpool, 162 tons register, official number 63232], from Calcutta to Port Natal, with a cargo of rice. The pilot stated that on the 27th February he turned round from a little above

the Matea-bruj ghât at 9 A.M. and proceeded down the Hooghly river easy—in tow of the India General Steam Navigation Company's steamer *Kohmia*, the latter being on the starboard side—on account of the schooner not being able to get her anchor which was hooked under the forefoot. The weather being calm at the time, the pilot went at full speed till near the Sankral Spit buoy, with the intention of getting out of the way and passing the buoy before the barque *Frank Stafford*, in tow of the steam-tug *Hunsdon*, also proceeding down, overhauled her; the barque being two or three lengths astern of the schooner. On nearing the Sankral Spit buoy, the pilot kept her on the edge of the sand, when the schooner's head began to pay off to port; he then directed the helm, to be put hard-a-port, and as she still paid off the *Kohima's* helm was put hard-a-port. The *Myvanwy* had just stopped paying off, and was recovering when she unfortunately touched, at low water, on the Spit of the Sankral sand, close to the Spit buoy. The pilot immediately stopped the *Kohima* and backed full speed, on which the schooner swung and came off within five minutes. No damage to the hull or cargo. No loss of life.

[A Departmental Committee of Inquiry was held at the Port Office, Calcutta, on the 20th March, for the purpose of ascertaining the cause which led to the grounding of the schooner *Myvanwy*. The Committee, after having considered all the evidence in this case, were of opinion that the grounding of the *Myvanwy* was caused by inexperience and the want of a leadsman in the chains. The Committee recommended that the pilot be admonished to be more careful.]

The Officiating Port Officer approved of the finding of the Departmental Committee of Inquiry, *viz.*, that the grounding was caused through inexperience on the part of the pilot, and that he be admonished. It was recommended, therefore, that the pilot be reprimanded and warned to be more careful in future, but should not be tried under Act XII of 1859.

The Lieutenant-Governor of Bengal accepted the finding of the Departmental Committee of Inquiry that the grounding was caused through inexperience on the part of the pilot, and directed that he be reprimanded and warned as to his future conduct.

66. The British wooden paddle steamer INVESTIGATOR [of Bombay, 515 tons register, belonging to the Indian Government] was employed on Survey duty in the Rangoon river. It appeared that at 12-30 P.M. of the 27th February the steamer sailed from the China Ba-keer lighthouse to Rangoon, the weather being clear, the sea smooth, and the wind calm. She was proceeding up the Rangoon river, and the Commander accordingly shaped the course N. 46° W. for the leading mark, with no sail set, going about 5 knots an hour. At 4-30 o'clock on the afternoon of the same day, whilst the steamer was testing a new and narrow channel across the Hastings' shoal, a cargo boat, being overladen with paddy and apparently not being under control, was sighted two points on the port bow, steering S. 66° E. The Commander immediately ordered the helm to be ported, but the crew of the boat kept rowing up to the moment of contact, losing all presence of mind. The steamer's course was altered 4½ points and the helm put hard-a-port and her engines stopped in order to avoid a collision. Notwithstanding which the boat persisted in crossing the steamer, when she was hailed and waved to, to back water and port her helm, but all proved of no avail, and the rim of the port paddle wheel of the *Investigator* came into collision with the boat. The cutter belonging to the steamer was lowered and sent to her assistance; the crew were picked up and the boat was subsequently towed to a place of safety on the river's bank. No damage to the steamer. Damage to the boat not reported. No loss of life. (It was reported that the boat was overladen and apparently unmanageable, and that had the helmsman put the helm to port, or made the three oarsmen cease rowing, and

had not attempted to cross the *Investigator's* bows, the casualty would not have happened.)

67. The British Indian padow JALAPRASAD [of Bulsar, 40 tons register, official number 1742, age 25 years], from Dwárka to Kurrachee, with a cargo of jaggery, tamarind, &c. On the 28th February the padow encountered severe weather when off Dwárka, in the Gulf of Cutch, and having sprung a leak she put back to port; a considerable portion of the cargo had to be thrown overboard for the safety of the padow. Value of damage to the padow, ₹150; cargo worth ₹312 was lost, and the remainder were saved. No loss of life.

68. The Norwegian wooden ship OLAF TRYGVASON [of Stavanger, 871 tons register, official number not reported], from Bassein (Burma) to The United Kingdom, with a cargo of rice. It appeared that the ship was lying alongside the wharf in the Bassein river loading a cargo of rice for the United Kingdom. At 6 o'clock in the evening of the 28th of February, after having taken in a full cargo of rice in bags, the master ordered the pumps to be sounded and found 36 inches of water. The pumps were at once manned, and after pumping all the water out, pumping was resumed every quarter of an hour. On sounding again it was observed that the ship made 12 inches of water in an hour. As the ship had not, until the last day of loading, made more than the quantity of water, the master came to the conclusion that either the vessel must have sprung a leak on the last loading day, or that if the leak had existed already before, it must have been situated above the mark up to which she had been loaded on the previous day. On the following morning two British shipmasters and the master of a Norwegian ship proceeded on board the *Olaf Trygvason* for the purpose of surveying the vessel as it had sprung a leak. The Surveyors, after carefully sounding the pumps every quarter of an hour, found the ship leaking to the extent of 11 or 12 inches per hour. They stated that the ship had taken about 200 tons of cargo on board, which completed her loading since pumping the vessel as usual at 6 A.M. on the 28th, and it was this latter amount of cargo which put the ship down 20 inches deeper in the water, and she then made the 32 or 36 inches of water found by the master of the *Olaf Trygvason*. The Surveyors considered that the ship was making too much water to proceed on her voyage, and recommended the vessel to be lightened of the cargo which was shipped on the 28th (*viz.*, 200 tons) to endeavour to discover the leak. On the 2nd March, after discharging the cargo, the Surveyors again, by carefully sounding the pumps every half hour, found the vessel still continued to leak at the rate of 11 or 12 inches per hour. Seeing that the ship settled deeper in the water aft than on 28th February before taking any cargo that day, the Surveyors procured a few coolies and with their assistance had the vessel put on the same trim as on the last mentioned date; but it made no difference in the leakage. The Surveyors therefore advised the discharging of the cargo to be continued as rapidly as possible, and that should the leak not cease after the cargo had been discharged, it would then be evident that the leak must be in the ship's bottom; and that as there were no facilities for surveying bottoms of vessels in the port of Bassein, they farther advised that the ship be taken at once to Rangoon as being the nearest available port, where her bottom could be surveyed and repaired. The results of the two surveys called by Lloyd's Agents at Bassein, which explained no cause for the leakage of the vessel, the Port Officer advised the master of the *Olaf Trygvason* to have the ballast round, about, and abaft, the main-hatch shifted, after which he proceeded on board and discovered the locality of the leak from the noise caused by the water rushing in, but was unable to ascertain the cause. The limber boards on the port side of the keelson abaft the pump-box were removed, and the leak was found in the keel seam between just under the after bulkhead of the pump-box. Subsequently the whole of the cargo was

unloaded, and the master called a survey of his own countrymen, and the vessel was again surveyed on the 15th March by four Norwegian ship-masters. They reported that the ship had sprung a leak after having taken in a full cargo of rice. The leak was discovered about 8 feet abaft the mainmast on the port side in the keel seam between the limbers, and about 3 inches in length. The leakage was carefully stopped from inside, and after sounding the pumps, found the ship to be making three-fourths of an inch of water per hour; they were of opinion that no risk would be incurred in taking the vessel to Singapore in ballast for repairs. In the meantime the owners and the charterers having agreed to cancel the charter party, the master took in sand ballast and proceeded with his ship to Singapore on the 23rd March. The master, however, died shortly after leaving Bassein. Value of damage to *Olaf Trygvason,* about ₹6,000; cargo, ₹4,000. One life lost. (The cause of this casualty was not known.)

69. The British iron paddle steamer TYRONE [of Barrow, 250 tons register, official number 28499, age 20 years], from Calcutta to Chándbali, with 400 passengers and a general cargo. It appeared that the steamer left Calcutta on the 27th February bound for Dhamrá and Chándbali with a general cargo and 400 passengers on board. The master stated that at 6 A.M. on the next day the steamer under his command was steering S.W., to enter the North channel at the Kanaka buoy, entrance to the Dhamrá river (Orissa coast). It was broad daylight and the weather was clear, the wind was a light wind from the S.W., and the sea smooth in the river; it was the first of the flood-tide, which was running about 1½ miles per hour. The Kanaka buoy was about half a mile ahead, the master observed the S.S. *Medina* in the North turning round to proceed out of the river. The *Medina* turned to the northward, and when round was well on the northern side of the channel, about 3 points on the *Tyrone's* starboard bow; the *Medina* was steering a fair course out, or about N.E. by E., apparently with the intention of passing round the *Tyrone's* stern to haul up for the South channel. As the *Medina* neared the *Tyrone,* the master observed her haul more to the eastward; he blew the whistle to intimate that the *Tyrone* intended passing on her starboard side, the object being to keep the *Tyrone* well to the southward of the North channel, there being the most water. Had the *Medina* kept on the course she was steering, she would have passed well astern of the *Tyrone,* which was heading S. by W., but she suddenly hauled up S.E. At 6-30 A.M. the *Medina* was by this time so close to the *Tyrone* that through this manœuvre a collision was inevitable. The master of the *Tyrone* therefore put the helm hard-a-starboard to lessen the blow, and immediately afterwards the *Medina* struck the *Tyrone* on the starboard sponson with her port bow. The collision was fortunately not a severe one; the vessels separated from each other after striking; the *Tyrone* only had her paddle-box and starboard wheel damaged; estimated value ₹600. No cargo lost. No loss of life. (The master of the *Tyrone* stated that the accident was brought about entirely by the master of the *Medina* in hauling her up S. E. when she was very close to the *Tyrone.)*

[A Departmental Committee of Inquiry was held at the Port Office, Calcutta, on the 10th March, to inquire into the cause of the collision which occurred between the steamers *Medina* and *Tyrone* in the Dhamrá river whilst in charge of licensed steam-tug pilots. The Committee, after having well weighed the evidence, were of opinion that the steamer *Tyrone* was to blame especially in not complying with Article 18 of the Rule of the Road. The Committee desired to place on record, for the information of the Port Officer, their surprise at having heard from the master of the *Tyrone* that a steamer licensed to carry 1,200 passengers should have been devoid of the services of a second officer.]

The Committee being of opinion that the steamer *Tyrone* was to blame

especially in not complying with Article 18 of the Rule of the Road, the Officiating Port Officer suggested that the master—a licensed steam-tug pilot for the Hooghly river—who was in charge of the *Tyrone* when the collision took place, be brought to trial under the provisions of Act XII of 1859.

The Lieutenant-Governor of Bengal, after having perused the papers in the Departmental Committee of Inquiry, ordered that a Marine Court be held under the provisions of Act XII of 1859 (an Act to make better provision for the trial of pilots at the Presidency of Fort William in Bengal for breach of duty) to try the master—a licensed steam-tug pilot—who was in charge of the steamer *Tyrone,* for having caused the collision between that vessel and the steamer *Medina.* The Port Officer was requested, when submitting the proceedings and report of the Marine Court, to report regarding the insufficient number of officers carried by the steamer *Tyrone* which the Departmental Committee of Inquiry brought to notice.

[A Marine Court of Inquiry was held at the Port Office, Calcutta, on the 17th, 18th, and 19th March, by the Officiating Chief Presidency Magistrate under the provisions of Act XII of 1859, for the purpose of investigating the circumstances attending the above collision. The master of the *Tyrone* was charged by the Court on the following accounts:—For that he, the said master, (a licensed steam-tug pilot) being in pilotage charge of the steamer *Tyrone* did, on or about the 28th day of February, through ignorance, negligence, carelessness or other default in the performance of his duty, cause that vessel to foul the steamer *Medina* near the entrance to the Dhamrá river off the Kanaka buoy, resulting in damage to both vessels. The Court recorded that it appeared that there were two entrances to the Dhamrá river—a North and a South. Both steamers were proceeding from Calcutta to Chándbali. The *Medina* was from 3 to 4 miles ahead at about 6 A.M.; she passed the Kanaka buoy at 6-10 A.M. on her port side, and proceeded about a quarter of a mile up the channel (*i. e.,* into the North mouth of the Dhamrá), going at half speed or at 3½ knots an hour according to the statement of the master. She then found that there was insufficient water, and turned round on a port helm without altering her speed; when she got back to the Kanaka buoy she was then steering N. E. by E., and the *Tyrone* was then heading N. by E. on the *Medina*'s port quarter, *(sic)* about three lengths off. The master of the *Medina* and also his first officer stated that about this time the *Tyrone* was steering S. E., but to the Court, having regard to all the circumstances, as it pointed out later on, this appeared to be improbable. Although the master of the *Medina* stated that he still kept on his port helm and gradually came round to the South, he admitted that after, in the process of coming round, he had got to N. E. by E., he kept on that course for about five minutes—an admission which was corroborated by the first officer, who stated that the *Medina* kept on that course for a few minutes. The master of the *Medina* went on to say that when he had got round to the South, the *Tyrone* appeared to have been going at ordinary full speed. If the *Tyrone* had, at three lengths off, been steering S. E., she must have altered her course suddenly and steered straight for the *Medina,* as at the time of the collision, or just immediately before it, her course was S. W., or at least to the westward of South. In other words, the *Tyrone* must have made a deliberate attempt to run the other down. This was incredible. When a collision appeared to have been imminent, the master of the *Medina,* one minute before the collision actually occurred, stopped and reversed his engines full speed. By the time the collision did occur he stated the *Medina* was making sternway of about 2 miles an hour. The shock of the collision was slight; both steamers after striking going off from each other. The Court observed that the manœuvre which the *Medina* executed was shortly this. She had passed the Kanaka buoy, and after proceeding

some distance down into or towards the North mouth of the Dhamrá, and finding insufficient water to pass the bar, she turned round on her port helm to come out round the northern side of the Kanaka buoy. In coming round, as the Court had already mentioned,the *Medina* was said to have got upon and kept to a N. E. by E. course for about five minutes. The master of the *Tyrone* in his report alleged that he observed what the *Medina* was doing; that in fact he understood she was backing out of the northern mouth of the Dhamrá to get into the southern; but he further alleged that he concluded that the *Medina* meant to pass astern of the *Tyrone.* The Court recorded that it was to be observed that the master of the *Medina* stated that at the time he got back to the Kanaka buoy his course was N E. by E. At that time the vessels must have been at no great distance from each other, for the collision occurred within 20 feet of the Kanaka buoy. Had the *Medina* kept to the N.E. by E. course, she would have gone astern of the *Tyrone,* and there would have been no collision. The *Medina,* however, did not keep N. E. by E.,; but notwithstanding the proximity of the vessels, and the fact that the distance between the two steamers was rapidly being diminished, turned round across the hawse of the *Tyrone,* a manœuvre which on the face of it appeared to have been most imprudent to say the least. The position then of the steamers became one of great danger. The master of the *Tyrone* stated his course was S. W., and in this he was borne out by the seacunnie who put it S. W. by W., by the compass, which however was stated to have had one point of deviation. The *Medina* stopped and reversed her engines full speed, and although this was only one minute before the collision, she was said to have got sternway. This seemed improbable, as she had been going at the time of stopping about 3 or $3\frac{1}{2}$ knots. The improbability was increased from the statement of the first officer of the *Tyrone* that the life-boat davit on the *Tyrone* was bent forward by the collision—a result which could hardly have been brought about if the *Medina* were backing. The Court observed that if this evidence was to be believed it would appear that the *Medina* struck the *Tyrone,* and not the *Tyrone* the *Medina.* Now, although it might have been that the position of danger into which the steamers got as they neared the Kanaka buoy was brought about by the *Medina* executing the manœuvre which it did across the hawse of the *Tyrone* when the *Tyrone* was at no great distance off, yet it was the duty, under the Rule of the Road, for the *Tyrone* to have slackened or reversed. Had she done so, it seemed there would have been no collision. But according to the evidence she never altered her speed at all up to the time of the collision. The Court therefore directed the jury, upon that point alone, to find the accused guilty. The Court did so, because, whether or not the position of danger was brought about by the action of the *Medina,* the *Tyrone* was bound to have followed the Rule of the Road which applied under the circumstances. In this case it appeared to the Court that Rule 18 applied. The Court observed that it was quite true that where danger was imminent a vessel might have been justified in disregarding rules, and doing what under the circumstances appeared most likely to have averted or lessened the effect of a collision, but in this case there seemed to have been no reason whatever for the *Tyrone* not slackening speed or reversing as soon as the *Medina* attempted to cross her bows. The jury returned a verdict that the master of the *Tyrone* was in no way to blame for the collision. They desired to express their surprise that on the *Tyrone* there was only one officer, and he know nothing of the navigation of the channels, so that in the case of sickness of the master there would have been no one on board to have navigated the vessel. The Judge was unable, for the reasons he had stated, to agree with that verdict. In the opinion of the Judge it was clearly the duty of the accused to have slackened speed or reversed his engines when he found that he was approaching another vessel in a position of danger.

Under the circumstances the Judge did not acquit the accused, but stated that he would report the matter under section 19 of Act XII of 1859 to His Honor the Lieutenant-Governor for such orders as he might deem necessary. The Court recorded that it would be observed from the rider which the jury had very rightly added to their verdict, that the *Tyrone* had only one officer besides the master, and that officer confessed himself totally unacquainted with the channels through which the vessel had to be navigated twice every week. Considering that the *Tyrone* was licensed to carry 1,200 passengers, this seemed to show very little regard for the value of human life. Should the master of the *Tyrone* have been struck down by sickness, or disabled by accident, the steamer with 1,200 lives on board might have been at the mercy of one who had no knowledge of the navigation.]

The Officiating Port Officer recorded that it would be seen from the proceedings of the Marine Court that the jury returned a verdict that the master of the *Tyrone* was in no way to blame for the collision. The Judge, however, had recorded his dissent from the verdict of the jury; and after a careful consideration of the facts of the case he was at one with the view taken by that official that the master of the *Tyrone* was guilty of gross negligence in not having slackened the steamer's speed when approaching another vessel so close as to render a collision possible. He had thus, to the Officiating Port Officer's mind, clearly failed to comply with the terms of Article 18 of the Rules of the Road at sea. The remark of the Departmental Committee of Inquiry and of the Judge as to the steamer not being provided with a second officer was much to the point; but from section 13 of Act I of 1859, it was observed that a vessel was not compelled by law to carry more than one certificated officer besides the master, so, unless the enactment on this point was altered, the Port Office was powerless in the matter.

The Lieutenant-Governor of Bengal remarked that the Judge of the Marine Court having refused to accept the verdict of the jury acquitting the master (a licensed steam-tug pilot), who was in charge of the S.S. *Tyrone* at the time of the collision, and submitted the proceedings for the orders of Government, the Lieutenant-Governor ordered, under section 19 of Act XII of 1859, that a new trial be held to inquire into the charge against the master of having caused the collision between the steamers *Tyrone* and *Medina*.

[The case was again tried *de novo* by the Officiating Chief Presidency Magistrate at the Port Office, Calcutta, on the 8th, 15th, 22nd, and 28th April and 1st May under the provisions of section 19 of Act XII of 1859. The Court recorded that the jury summoned did not attend; two merchants summoned having gone to England and one being about to sail that night, the matter was adjourned and other jurors were accordingly summoned to appear. The master objected to the Judge sitting as Judge on the new trial, on the ground that he had already on the former trial expressed an opinion antagonistic to him. It appeared to the Judge that the master was entitled to take the objection, and the matter was therefore represented to the Government for orders. No orders having been received from the Government, it was necessary to adjourn the case for a week. The Court recorded that in accordance with the orders of His Honor the Lieutenant-Governor of Bengal, passed under section 19 of Act XII of 1859, the master was again put upon his trial on a charge of unskilfulness, negligence, or other default in the performance of his duty, whereby a collision was brought about between the steamers *Tyrone* and the *Medina*. The Court remarked that this trial was of course kept entirely separate from the former trial, and the jury had to return their verdict upon the evidence as it was placed before them. The evidence was practically the same as on the first occasion, and it appeared to the Court unnecessary to have set out at length the facts which had been stated in the Court's former report. The only point which was pressed against the accused on the present trial was that under

Rule 18 of the Rules of the Road he ought to have stopped and reversed or slackened speed when he found that he was in a position of danger; upon this point the accused adduced additional evidence. He called the second engineer, who stated that it would have taken four minutes for the *Tyrone* to have stopped and backed, because she had only hand gear, and her valves were very heavy and her cylinders would fill with water. The accused put in a written defence drawn up before the trial, and he also made a further verbal statement to the jury. In effect he stated that he was well aware at the time that under Rule 18 he was bound to have slackened or stopped and backed, but that knowing as he did that his cylinders would have filled by reason of the weight of the valves and rendered him helpless, he advisedly disobeyed the rule. The evidence of the second engineer and of the accused himself, the jury accepted as an answer to the charges of unskilfulness and negligence and acquitted the accused. The jury returned a verdict of not guilty. They expressed an opinion that a vessel like the *Tyrone* navigating the Hooghly river should have had the starting and reversing gear in better order. The verdict was a perfectly legitimate one upon the evidence, and the Judge accepted it and acquitted the accused.]

The Port Officer entirely concurred in the finding of the Marine Court. It appeared to him from a perusal of the reports of the two masters that the steamer *Medina* was to blame primarily; that the steamer *Tyrone* could not anticipate *such a manœuvre* on the part of the steamer *Medina* as that vessel attempted to execute, and that under Rule 18 of the Rules of the Road at Sea the master had an option, *viz.,* he was to stop or reverse "if necessary." In this case he acted for the best in all probability in not having attempted to do so. So much time had been taken up over this slight collision, only important through the large number of passengers those steamers carried, that the Port Officer did not suggest that the master of the steamer *Medina* should have been tried, but considered that he might be reprimanded. Further it appeared to him that the steamer *Medina's* officers gave most unsatisfactory and contradictory evidence.

The Lieutenant-Governor of Bengal agreed with the Port Officer in thinking that the master of the steamer *Medina* should be reprimanded for his imprudence in having turned his vessel across the course of the steamer *Tyrone.* The Lieutenant-Governor directed that the master of the steamer *Medina* be reprimanded accordingly.

70. The British iron screw steamer MEDINA [of Glasgow, 524 tons register, official number 30634], from Calcutta to Chándbali, with a general cargo and 500 passengers. The steamer left Calcutta on the 27th February bound for Dhamrá and Chándbali with a general cargo and 500 passengers on board. The master stated that at 6-10 A.M. on the 28th February, the steamer *Medina* arrived at the Kanaka buoy and went into the North channel, but on finding there was not sufficient water to proceed into the Dhamrá river (Orissa coast) over the bar, he turned the steamer and proceeded out of the channel towards the Kanaka buoy to go into the South channel. It was a smooth sea, but in the river the flood-tide had made; it was the first quarter running about 1½ miles an hour. The weather was clear and it was calm. The *Medina's* engines were working half speed at 6-20 A.M.; she came out of the channel passing close to the Kanaka buoy on the starboard bow, the steamer *Tyrone* being on her port quarter *(sic).* The master of the steamer *Medina* alleged that he ported the helm in order to show the steamer *Tyrone* what the *Medina* intended doing. At this time the steamer *Medina* was heading N. E. by E., by compass, and was going round to S. E. on the port helm. He said that on seeing the *Tyrone* steaming up on the *Medina's* port quarter, trying to cross the latter's bows, he eased the engines, stopped and reversed full speed astern; about a minute before the accident, the steamer *Medina* was heading South, at that time her engines

were still going full speed astern to avoid a collision. At 6-30 A.M. the steamer *Medina* came into collision with the *Tyrone,* her port bow striking the latter on her starboard sponson. The accident was happily slight; both vessels after the collision separated from each other. The steamer *Medina's* two plates, one beam and two angle irons on port side were damaged. The damaged plates were above the 'tween-decks a little abaft the port cathead and before the collision bulkhead. Value of damage to the *Medina,* ₹2,780. No cargo lost. No loss of life.

71. The British Indian schooner OMRAJAN [of Chittagong, 84 tons register, official number 10 of 1881], from Chittagong to Narainganj, with a cargo of salt. On the 28th February the schooner was anchored off the Takta khali, Jalchira river, mouth of the Megna (Sunderbuns), when at 10 P.M. she dragged her anchors in consequence of strong winds and drifted ashore. She was subsequently recovered with little or no damage. No loss of cargo. No loss of life.

MARCH.

72. The British iron screw steamer CHANDA [of Glasgow, 1,304 tons register, official number 76759], from Bombay to Calcutta, with a general cargo. It appeared that on the 5th March the steamer was unmoored and lying at single anchor with 30 fathoms of chain out in Bombay harbour. The master stated that he was on board and was carrying out the written instructions of the Agents relative to the vessel's departure before midnight; he had ordered all the hatches to stop work at 11 P.M. so that receipts might be finished in time, and all the coolies had also left. At 11-40 P.M. the third officer and the gunner were below putting on the main 'tween-deck hatches, when a slight explosion was heard by them, and their attention was immediately turned to the spot. It was perceived that simultaneously with the explosion fierce jets of flame and volumes of dense sulphurous smoke issued from the port side of the main 'tween-decks directly abreast of the bunker hatch, and though every effort was made to approach the locality the flames rendered it impracticable. At this time the first officer and the chief engineer whilst passing noticed it, and instantly reported the circumstance to the master, who at once sounded the bell for fire stations and kept the steam hoses in full play. Strenuous endeavours were made to put the fire out; and although the flames burnt fiercely and the fumes were suffocating, the efforts of the crew were successful, as the fire was entirely extinguished at midnight, having been burning for twenty minutes. Both wings of the main 'tween deck and the orlop deck were burned and charred; estimated value not reported. Of the cargo, about 40 packages were damaged both by fire and water; value not stated. No loss of life. (It was reported that the fire originated in a case, consigned to Tellicherry, which consisted of dates and dry fruits and a large bundle of rockets, together with a tin box containing a small bottle of acid, which had evidently burst and ignited.)

73. The British iron screw steamer CHINDWARA [of Glasgow, 1,533 tons register, official number 80442], from Bombay to Calcutta *viâ* coast ports, with a general cargo. On the 6th March the steamer under pilotage charge was proceeding up the Hooghly river; at 4-50 P.M., when a little above Nurpur point, the steamer would not answer her starboard helm; owing to the wheel chain having jammed, the helm could not be put more than a little to starboard, and the vessel bilged on the bank, but immediately came off; the steamer after proceeding for an hour again bilged abreast of the red Nun buoy below the creek at Fulta point. No damage to the steamer or cargo. No loss of life. (The occurrence was unavoidable under the circumstances of the wheel chain being jammed.)

74. The British Indian muchwa HERAPRASAD [of Bulsár, 12 tons register,

official number 2025], from Bilimora to Cambay, with a cargo of jaggery and tamarind. On the 7th March, when off Bhagvádándi, in the Gulf of Cambay, the muchwa, on account of boisterous weather and heavy seas, sprung a leak; she shipped much water, and a portion of the cargo was thrown overboard in order to lighten her. Slight damage to muchwa; cargo worth ₹772 was lost, and the remainder saved. No loss of life.

75. The German iron ship WEGA [of Bremen, 1,115 tons register, official number not reported], from Bremen, to Rangoon, with a general cargo. It appeared that the ship in charge of a pilot, and in tow of the steam-tug *Firefly*, had proceeded up the Rangoon, river (Burma coast). At 9 A.M. on the 8th March the vessel, in going alongside the Shulay pagoda wharf in charge of an assistant harbour master during the first of the ebb-tide, came into collision with the wharf. The dead-eye of the flying jib guy was bolted on to the top of the rail of the topgallant forecastle, and projected out from the vessel's side about 4 inches, and in going alongside the dead-eye caught the wharf, and split the end of the rail. Estimated damage, ₹100. No loss of cargo. No loss of life. (It was stated that the casualty was accidental, but how caused was not reported.)

76. The British iron screw steamer SHAHJEHAN [of Liverpool, 1,036 tons register, official number 78829], from Calcutta to Penang *viâ* Akyab and Rangoon, with a cargo of rice and gunny bales: It appeared that the steamer had proceeded up the Rangoon river in charge of a pilot on the 8th March, and was relieved by an assistant harbour master when within the harbour limits. The assistant harbour master said that he boarded the vessel just at slack water; a little afterwards, it being the first of the flood-tide, the weather was fine and clear. After joining he asked the first officer of the vessel whether the hawse was clear, who said "yes," and he accordingly proceeded with the vessel to her moorings. At 11-40 A.M. on that day the steamer swinging round to the flood, when abreast of Latter street wharf, Rangoon river (Burma coast), she took a cross on the chain, and the assistant harbour master said that he ordered the first officer to clear it. Subsequently the first officer inquired whether the assistant harbour master had his breakfast, who replied in the negative, when he was requested to go into the cabin where the first officer had ordered the breakfast to be served. The first officer sat down opposite the assistant harbour master busily engaged in writing. After the assistant harbour master had breakfasted, he and the first officer both went on deck and found that the syrang had already passed a lashing on the chain and had the chain unshackled. The assistant harbour master said that he had passed no orders, and the first officer on looking over the bows called out that the chain had slipped through the lashing. He said that neither the first officer nor himself were forward when the lashing was passed or the chain unshackled, and they both had just gone forward when the chain slipped through the lashing, carrying with it the anchor. No damage to the steamer or cargo. The anchor and chain were subsequently recovered and delivered to the vessel at a cost of ₹75. No loss of life. (It was reported that the casualty could have been avoided had the assistant harbour master given the first officer the order to clear the hawse and left it to that officer to do the work, or if he particularly wished to have done it himself, he should have been more careful by seeing the chain properly secured before unshackling.)

77. The British Indian muchwa LAXMI [of Uran, Konkan, 5 tons register, official number 2238], from Thána to Basseen, with a cargo of liquor. At midnight of the 9th March, when off Dupani, Bombay harbour, the muchwa, in consequence of the force with which the spring tides were running, was driven

on to a rock, and having sprung a leak, sank. At low-tide the muchwa was recovered with little or no damage. The cargo was all lost, value ₹1,350. The crew, 4 men, were saved by clinging to the muchwa's side, whence they were ultimately picked up and landed.

78. The British Indian padow RUPAREL [of Bulsár, 16 tons register, official number 1992, age 37 years], from Bilimora to Bombay, with a cargo of tamarind and mats. It appeared that the padow was an old craft, and had been kept lying on the beach exposed to the sun for some time before she was loaded; the consequence was that her planks had been considerably warped, and she was in a very leaky condition when used. On the 10th March, when near the Ambika river (Bombay coast) the leak became so bad that the water reached and damaged the cargo. Value of damage to padow ₹150; cargo worth ₹100 was lost and ₹100 damaged. No loss of life.

79. The British Indian craft JAMNA SAGAR [of Bombay, registered tonnage and age not reported, official number 4320], from Bombay to Kárwár, in ballast. The tindal stated that on the 11th March the craft was proceeding with all sail set when, in consequence of a sudden heavy gust of easterly wind, she capsized off Purangad (Bombay coast). She was subsequently recovered. Value of damage to the craft, ₹2,500. No cargo on board. The crew, 14 men, safely came ashore in the canoe belonging to the craft.

80. The British iron screw steamer CERVIN [of South Shields, 1,241 tons register, official number 69875], from Negapatam to Rangoon, with 345 tons water ballast. It appeared that the steamer arrived at the entrance to the Rangoon river (Burma coast) on the 10th March, and was anchored by the pilot for the night at Elephant point anchorage. On the following day, at 6 A.M., the pilot weighed anchor and proceeded up the river, it being at the time first quarter ebb; at 9-30 A.M., after nearing the Monkey point channel buoy, the steamer passed nine cargo boats, some loaded and others empty, moving with the tide in the channel, when there was also a laden boat apparently at anchor on the shoal close below the Monkey point, and the tide at this time being half-ebb, was running strong. The pilot starboarded the steamer's helm to point for the Rangoon reach; the steamer answered her helm very well, but the above loaded cargo boat had just then dropped into the channel, also with the tide. The pilot, therefore, finding it impossible for the steamer to enter the reach without running her down, steadied the helm, stopped and reversed the engines; her head then paying off to starboard, she ran on shore on the Puzundoung bar, before she could gather sternway. On the flood-tide having made, the steamer turned astern with the engines until she began to move; the pilot immediately let go the port anchor to allow her to swing to it, as also to prevent her going on shore at Puzundoung point, when she floated off after having been aground about 10 hours. No damage to the hull; an anchor stock was broken, value about £30. No cargo on board. No loss of life. (The pilot attributed the accident to the loaded cargo boat dropping into the channel whilst the steamer was entering it. He further stated that, had the boat remained at anchor where she was first sighted, or had dropped anchor when her crew saw the steamer proceeding towards her, he would have passed astern of her and got into the anchorage safely.)

[A Court of Inquiry was held in the Deputy Commissioner's Court, Rangoon, on the 19th March, by the District Magistrate under Rule XXIV of the Rangoon Pilot Rules, to investigate the circumstances connected with the grounding of the S.S. *Cervin*. The Court, after having considered all the evidence that could be produced in the case, were of opinion that the pilot did everything in his power that could possibly be done, and was in no way to blame.

The Court also observed that, had the pilot run down the cargo boat, he would have spoilt the only channel; or had he dropped anchor, there was a risk of the anchor passing through the bottom of the steamer. The Court, therefore, acquitted the pilot of all blame in connection with the accident.]

The Chief Commissioner of British Burma confirmed the finding of the Court of Inquiry acquitting the pilot of all blame for having grounded the S.S. *Cervin*.

81. The British iron screw steamer CARMONA [of Dundee, 2,447 tons register, official number 82742], from Calcutta to London, with a general cargo. It appeared that on the morning of the 11th March, the steamer, in charge of an assistant harbour master, was steaming out of her berth from No. 7 Jetty in the Hooghly river against the ebb-tide, and the S.S. *Karamania* was unmoored for the purpose of being placed alongside of No. 6 Jetty. At 7 o'clock on that morning, whilst the latter vessel was sheering in towards No. 6 Jetty, her starboard anchor caught the afterboat's davit on the port side of the S.S. *Carmona*, carrying away the latter's port davit and all the rigging of the mainmast on the port side, the topmast backstay, the two bulwark plates, besides doing other damage to rail and stanchions. On the same day the Surveyor to Lloyds' Agents proceeded on board of the S.S. *Carmona* lying off No. 4 Jetty, Hooghly river, in order to make a survey of the damage caused by the starboard anchor stock of the S.S. *Karamania* having caught the *Carmona's* main rigging and bulwarks on the port side whilst the latter vessel was hauling out from No. 7 Jetty and the S.S. *Karamania* hauling in. After a careful survey it was found that the five shrouds of the mainmast on the port side were carried away; the setting-up screws and the eyes in the channel plate, as well as the eye in the masthead band, to which they were shackled, had broken. The Surveyor stated that the shrouds were uninjured, and should be put back again with new rattling, seizing, &c. The eye in the masthead band could not be repaired at Calcutta (Hooghly river), but the shrouds should be temporarily fixed to the masthead as a temporary band made in two pieces to fit round the masthead, and a new rigging band should be made when the steamer got to London. The four broken eyes in the channel plate, to which the rigging was set up, should be replaced with temporary eyes riveted on, and the channel plate renewed when the steamer reached her destination, if considered necessary; the setting-up screws to be examined, straightened, and repaired. The main topmast backstay on the port side broken in two pieces, and the setting-up screws broken to be replaced with a new backstay and the setting-up screw repaired; the after-davits and sockets of the port after-boat broken, the davit to be repaired, and new sockets supplied, fitted and fastened; two bulwark plates and the round iron rail slightly bent, to be straightened when the steamer reached home; the iron pin rail fixed to the port main rigging broken, must be replaced by a new pin rail; the main rail made of two hollow half-round irons, and three one-inch rod iron intermediate rails and six rail stanchions bent and broken, must be repaired at Calcutta before the steamer proceeded to sea; the upper (grated) platform of the accommodation ladder on the port side and the iron work connected with it broken and bent, to be repaired either at Calcutta or when the steamer arrived home; some running gear cut and damaged, must be renewed at Calcutta as required. The Surveyors reported that these were principally temporary repairs to take the vessel on her voyage, but complete repairs must be done on the steamer's arrival at Home. The *Carmona* was detained for two or three days in port in consequence of repairs. Value of damage to the *Carmona*, ₹1,612. No damage to the cargo. No loss of life.

82. The British iron screw steamer KARAMANIA [of Barrow, 2,045 tons register, official number 83989], from Glasgow to Calcutta, with a cargo of piece-goods, iron and locomotives. It appeared that at 3-30 A.M. on the

11th March, an assistant harbour master arrived on board the steamer *Karamania,* lying off No. 6 Calcutta moorings, Hooghly river, and according to orders received he unmoored and breasted her out (preparatory to going alongside the jetty just vacated by the *Carmona*), as far as he could, sharp at daylight, in line with the outer buoys and with one cargo boat jammed between her and the S.S. *Afghan.* The *Karamania* remained in that position until the *Carmona* steamed out at about 7 A.M.; the latter vessel was moving out of No. 7 Jetty, and when opposite No. 6 Jetty, with a slow head of steam on, and a strong ebb-tide running on the starboard bow, when the *Carmona's* foremast was abreast of the *Karamania's* stem the tide sheered her against the latter vessel, which was moored outside of her. The *Karamania* had a plate stove forward above the main deck. Estimated value £200. No damage to the cargo. No loss of life. (The assistant harbour master of the *Karamaina* stated that the *Carmona* was on an angle of 45° outwards, and her helm was to port, which caused her to fall out in consequence of the tide and foul the *Karamania,* doing damage to both vessels. The *Carmona* was going very fast over the ground at the time of the collision.)

83. The French iron screw steamer POITOU [of Marseilles, 1,544 tons register, official number not reported], from Singapore to Rangoon, with 500 tons water ballast. It appeared that the steamer had proceeded up the Rangoon river (Burma coast) in charge of a pilot. At 6-30 A.M. on the 11th March the steamer, in rounding to off Daneedau during the flood-tide, between Messrs. Ainslie, Warren & Co.'s rice mills and the wreck buoy off the Pegu saw mills, carried away her port anchor and ninety fathoms of chain owing to the misunderstanding of the pilot's orders, he not being able to speak French, and the master understanding very little English. Value of anchor and chain lost, ₹350. No damage to the steamer. No cargo on board. No loss of life. (It was reported that the accident was attributable to the defective condition of the chain.)

84. The British iron screw steamer CARMONA [of Dundee, 2,447 tons register, official number 82742], from Calcutta to London, with a general cargo. On the 13th March, the steamer, in charge of a pilot, was proceeding down the Hooghly river; at 10-30 A.M. the pilot whilst turning on the last of the ebb-tide off the King of Oudh's palace, Garden reach, with the Lower and Centre Bishop's College sand buoys in one, the steamer grounded on a lump as the least water on the starboard side was a quarter less 5 fathoms, whilst on the starboard side there was only 4 fathoms from the bridge to the forecastle. The steamer at the time was heading for Camberbatches point. The *Carmona* floated at 11-40 A.M., after having been aground for an hour; the pumps were carefully sounded, and no water being found she proceeded on her voyage. No damage to the steamer or cargo. No loss of life. (The Deputy Conservator of the Port Approaches reported that the place alluded to had been thoroughly examined, and no trace of the lump was discovered in the position given by the pilot. But that some alterations and extensions had however occurred on the Matea-bruj flat.)

The Officiating Port Officer observed that the occurrence was accidental, as subsequent to the casualty to the *Carmona,* it had been discovered that a shoal had been formed in the vicinity of the locality where the steamer grounded, and probably erroneous bearings were taken by the pilot which would account for the difference in the position as assigned by him and that by the Hooghly River Survey Department.

85. The British iron screw steamer BUSHIRE [of Glasgow, 547 tons register, official number 48901], from Rangoon to Calcutta *vid* Burman coast ports, with a general cargo. On the 14th March, the steamer was at anchor opposite the Port Office in the Rangoon river (Burma coast) in charge of an

assistant harbour master; at 4 A.M. on that day, whilst unmooring the steamer during a strong flood-tide, lost the starboard anchor and about two fathoms of chain, caused by the chain having parted. No damage to the steamer or cargo. The anchor and chain were subsequently recovered by a buoy vessel at a cost of ₹66. No loss of life. (The casualty was accidental.)

86. The British iron screw steamer COMMILLA [of Glasgow, 550 tons register, official number 73799], from Akyab to Chittagong, with 420 passengers and a general cargo. It appeared that the steamer left Rangoon on the 7th March, and after touching at Bassein, Sandoway, and Kyouk Phyou, arrived at Akyab on the 12th; she left that port on the morning of the 13th, bound for Calcutta *viâ* Chittagong, with a general cargo and 420 passengers on board. The master stated that he took his departure from Oyster island at 12-20 P.M. on that day and steered N. 4° 15′ W., true, distant 43 miles, and from that position the courses afterwards steered were N. 3° 15′ W., true, distance run 51 miles; N. 1° 15′ W., true, distance run 2 miles; N. ¼ E., true, distance run 11 miles; and N. 1° 15′ E., true, distance run 4 miles. At 12-30 o'clock on the morning of the 14th March, the master reckoned his position to have been in latitude 21° 36′ N., longtitude 91° 23′ E., and the course steered was N.N.E. ½ E., magnetic, in order to make the Kutubdea light, which the master so confidently expected to have sighted at 2-10 A.M. There was a good moon that night, only it was hazy towards the horizon over the coast; the weather was fine but fairly dark, the wind was a gentle breeze from the N.E., and the sea being slightly smooth. The ship was making 9½ knots an hour, and every allowance was made for the tide. At 12 o'clock on the night of the 13th the *Commilla* was in 9 fathoms, which afterwards gradually decreased to 7½, but when 6 fathoms was reported the master ordered the helm to be put hard-a-starboard. The deep sea lead was hove regularly every quarter of an hour until 4-10 A.M., and the vessel's speed was never reduced. There was a look-out on the topsail yard, one man on the bridge with the second officer and another about the forecastle. The *Commilla* stood on the N.N.E. ½ E., magnetic course for 32½ miles, and was, the master considered, to the South and West of that position, which corresponded with latitude 22° 03′ 45″ N., longitude 91° 41′ 0″ E. At midnight the second officer relieved the master who was on the bridge, and received the course N.E.½ E., magnetic; the steamer was then going at about 8¾ knots. He stated that the weather at that time was fine and clear, there was no moon, only the stars being visible, nor was there any haze over the land. The lead was kept constantly going, getting bottom at 8¾ fathoms. At half-past 12 A.M. on the 14th he called the master three times and reported the soundings he got, who promptly replied by giving orders to change the course to N.N.E., which course was then steered till 4 A.M., and the least water being obtained was 7½ fathoms. There was a seacunnie on the topsail yard keeping a good look-out, one on the bridge, and another on the forecastle head. The second officer swore that he never saw the light or the land, although he expected to have sighted the former during his watch; and this he seemed to have remarked to the first officer. He stated that he entered in the log-book that the only thing he saw was the ship *Iris,* and that was at 2 o'clock, on the starboard bow of the steamer 2½ miles off; she appeared to be heading to the North with her lights up quite plain, and that the *Commilla* afterwards passed her lying at anchor a mile distant. The first officer stated that he went on watch at 4 A.M. on the morning of the 14th and found the master on deck with the second officer; the first officer and the master had been so together for 40 minutes when the accident occurred. He received the course from the second officer of N.N.E., on which course the steamer was steered up to ten minutes past 4 o'clock, when it was altered by the orders of the master to N.E., and exactly half an hour afterwards the

Commilla went ashore, her head being to the N.W. The vessel's speed, he said, was slackened before the occurrence of the casualty, and that the hand lead was kept regularly going, all the time getting 7½ fathoms, but when it decreased to 6 the master ordered the helm to be put hard-a-starboard, at the same time the coast was dimly visible about 3 miles off. He deposed that there was no fog hanging over the coast, but that the stars were plainly visible. That at daylight, as it became clear, the Kutubdea lighthouse for the first time was sighted, and that was after the accident happened. The look-out men stated that on the morning of the 14th the light was not discernible ; that there was no fog, and the lead was kept going all the time. The master stated positively that at 4-10 A.M., the dead reckoning showed that the steamer had passed about 14 miles from the Kutubdea light, but it not being discernible, he came to the conclusion that the *Commilla* had not made good her distance run. It appeared that at this time the master apprehended that there was danger 4 or 5 miles beyond the range of the light ; and as he always had full confidence in sighting the Kutubdea light, he stood to the eastward, thereby expecting to make it, and hence ordered the first officer to alter the steamer's course to N.E.½E., magnetic. The vessel continued on that course until 4-30 o'clock, and on the hand lead being used, soundings were obtained at less than 7 fathoms, and that when 6 fathoms was reported, the master was on the bridge, and himself put the helm hard-a-starboard, and suddenly the low land was dimly visible on the starboard bow after the vessel had gone 3 miles on that course. The soundings rapidly decreased, and the master then realized his position ; he instantly ordered the engineers to stand by, and at once eased and stopped, and then tried to turn the steamer's head, which he succeeded in doing 8 points, but without any good results. A few minutes afterwards the engines having been stopped, the *Commilla* unhappily grounded gently on the South side of the entrance to the Sungoo river, about 2 miles from the shore (Chittagong coast). The master alleged that after the engines were stopped he found the vessel was on shore, and observed the land distinctly visible at half to 2 miles. He immediately ordered a boat to be lowered and sent the second officer to take soundings round the vessel. After which attempts were then made to get the steamer's head round to seaward with the aid of the engines, but it being the first quarter of the ebb-tide, it proved of no avail ; subsequently the master despatched the first officer up to Chittagong to obtain assistance, and in the meantime the crew laid out two anchors to the S. W., and with their help she was successfully steamed off, on the flood-tide making at 10-30 A.M., having been aground for six hours. Whilst the *Commilla* was steaming into the Kornafuli river on the outer bar, she met the steam launch *Python* with the Port Officer and the first officer of the steamer on board ; the latter vessel turned round and proceeded back to town (Chittagong). The master considered that the point where the vessel went ashore was 2½ miles S. W. of North Sungoo, which was therefore 6½ miles S. E. ¼ E. of his supposed position. The longitude, he said, was out, but he did not think it was wrongly placed as regards latitude. He further said that the Kutubdea light, in his opinion, was not burning, or if it had, it must have been burning badly, as he had on former occasions seen the light in weather known to have been hazy. He also stated that during his long experience he had noticed that thin fog frequently obscured the light after he had made it, and which should have been sighted at 2-10 A.M. The arc of visibility of the light was 18 miles, and the master was of opinion that he could not on the then course have been out of the range of the light without having stranded on the shoals which were situated to the westward of it. He positively stated that the light was not discernible until 8 o'clock the next morning, and that was after the vessel stranded, for had he duly sighted it, the steamer

would probably have stood on to Norman's point, the entrance point of the Kornafuli river. The master swore that he could only account for the accident in not having seen the Kutubdea light owing to its being obscured by a whitish mist. This statement was corroborated by the master of the ship *Iris,* the assistant light-keeper, and also by a Native pilot of the Chittagong port. The master of the *Iris* stated that at 1-20 A.M., on the morning of the 14th March, he anchored his vessel N. W.¼ W., distant 9 miles off the Kutubdea light, on account of the weather being very hazy, he not having sighted the light. He stated that he never saw the light up to 8 A.M. that morning; it was merely hazy at sea, whereas the fog hung thick over the land, hanging, he said, like a curtain over it. The assistant light-keeper said that a dense fog prevailed on land on the 14th from 12 midnight which lasted up till 8 A.M., and that the light was burning all the time. No damage to the steamer or cargo. No loss of life.

[A Special Court of Inquiry was held at Chittagong by the Officiating District Magistrate on the 21st and 22nd April under the provisions of section 7 of Act V of 1883 (The Indian Merchant Shipping Act) to inquire into the circumstances connected with the grounding of the S.S. *Commilla* off the mouth of the Sungoo river. The Court observed that the S.S. *Commilla* left Akyab on the 13th March, at 8 A.M., with mails and a large number of deck passengers, bound for Calcutta *viâ* Chittagong. Departure was taken from the Oyster reef, at 12-20 P.M., on the same date. Usual courses were steered which should have placed the steamer in 21° 36′ North latitude and 91° 23′ East longitude at 12-30 A.M., on the 14th. From this point a course N.N.E ½ E., magnetic, was steered till 4-10 A.M.; the master then said that, not having sighted the light, and considering that the steamer had not run her distance, though going 9½ knots throughout, he having full confidence in the Kutubdea light, stood in to make it, thus altering his course from N.N.E. to N.E.½ E. After running about 3 miles on that course, he suddenly sighted low land on his starboard bow; he put the helm at once hard-a-starboard, and before the steamer could come round she remained fast, the shock being so slight as not even to give warning to the passengers of what had happened. This occurred at 4-30 A.M., and at 10-30 A.M. the *Commilla* steamed off without having sustained any damage. If the position of the *Commilla,* as stated by the master, at 12-30 A.M., on the 14th March, had been her correct position at that time, the Court considered that proper courses were steered for making the Kutubdea light. The evidence showed that a proper look-out was kept, the lead regularly kept going, and the master on the alert. That from the courses steered and the position of grounding of the vessel, she must have been well within range of the light for at least two hours before she took the ground. The master having from long experience full confidence in the Kutubdea light, and there was nothing in the state of the weather or out at sea to account for the light being obscured, came to the conclusion that the steamer was really farther off the coast that his reckoning showed, and, therefore, stood in to the eastward in order to pick up the light. He had proceeded only 3 miles before the occurrence took place. The Court recorded that the question arose, how was it under the circumstances he saw no light? Either it was not lit, or it was obscured by fog. The Court were of opinion that there was no reason to doubt the light was lit as usual, and that there was abundant evidence to show that on the night in question a fog prevailed sufficiently thick to hide the light from another vessel (ship *Iris*) which was lying at anchor the entire night only 9 miles distant from the light. It also appeared from the evidence of the assistant light-keeper, and the entries in his books, that a dense fog prevailed on land on the night in question. The master of the ship *Iris* said it was merely hazy at sea, whereas the fog hung thick over the land, hanging, he said, like a curtain over it. The

master of the *Commilla* on the other hand, and all his officers, were at pains to prove there was no fog either at sea or on land. As regards the former, the Court were not prepared to say it was more than hazy, and as regards the latter, their evidence was somewhat weakened by the fact that the *Commilla* grounded 2 miles off the coast without sighting land. It was also in evidence that Kutubdea might have been enveloped in fog, and the mainland been comparatively clear. The evidence of a Native pilot of the port of Chittagong corroborated that of the master of the *Iris* in having proved that the light was liable to be obscured by fogs. The Court, therefore, held to the opinion that the light was burning, but was not visible to the *Commilla,* at any part of her course on account of fog. This was the outcome of the inquiry, and the Court were further of opinion that no blame was attached to the master of the *Commilla;* that the steamer was navigated with due care and judgment; and that the occurrence was entirely due to the fog having obscured the light. Both before and after the occurrence everything was done that the occasion demanded. The master and officers were accordingly acquitted.]

The Port Officer of Chittagong recorded that the steamer *Commilla*, after being on shore for six hours, got off with the assistance of kedges that the master had run out, and owing to a comparatively smooth sea the vessel had sustained no damage, and neither the crew nor the passengers had suffered any injury by the accident. It seemed that the Kutubdea light was not sighted by the master and officers on board the steamer, although they were keeping a bright look-out for the same. Strict inquiry had been made as to whether the light was kept burning on the night in question and as to the state of the weather at the time at Kutubdea, when it was proved that the light was burning on the night in question; from his (the Port Officer's) own experience, he was of opinion that the light was kept burning as usual, but that the dense white fog, which often hung over the land at that time of the year, completely obscured the light. He said that on several occasions he was unable to discern the light owing to the fog although only 4 to 6 miles off; and these facts only proved the greater need of a better description of light at Kutubdea. The want of a telegraph from the bar to the town (Chittagong) was much required, for had one existed at least three hours would have been saved in conveying intelligence of shipping casualties, &c. The great want of a sea-going steamer was also much felt. What the consequences would have been had the accident to the S.S. *Commilla* happened in the S.W. monsoon with the usual heavy sea that prevails it was impossible to say; probably the loss of that steamer and her cargo with the valuable lives on board; and as far as the port was concerned, it would have been powerless to have rendered assistance. The only sea-going vessels at Chittagong were two cutters, and these, too, were perfectly useless against strong tides. A sea-going steamer therefore should be supplied for the use of the port, for with the yearly increasing trade accidents were likely to happen, and at present the port were not in a position to save life and property at sea or to render assistance to vessels in distress.

The Officiating Commissioner of the Chittagong Division remarked that the report of the Special Court of Inquiry might be accepted as conclusive. The circumstances of this case suggested the larger question of the improvement of the coast lights, which was, he believed, already before the Government, but recorded that he need not touch on it with this report.

87. The British iron screw steamer AVAGYEE [of Glasgow, 247 tons register, official number 60431], from Rangoon to Tavoy, with a general cargo. It appeared that on the 17th March, it being flood-tide, the weather fine and clear, with a light breeze, the steamer in charge of the master (who was also a licensed pilot for the port of Rangoon) was proceeding down the Rangoon river (Burma coast); at 6-15 A.M. on the same day, owing to dredge barges and one cargo

boat being moored off the Commissariat wharf, the steamer had to slacken her speed to avoid running into them, but after losing much way she became quite unmanageable in the strong eddies, and unfortunately came into collision with the barque *Norwester*. Value of damage to the S.S. *Avagyee*, about ₹500. No cargo lost. No loss of life.

88. The British iron barque NORWESTER [of London, 546 tons register, official number 50348], from Rangoon to Rio Janeiro, with a cargo of rice. On the 17th March, at 6-15 A.M., the barque was moored with both anchors off the Commissariat wharf in the Rangoon river (Burma coast), and the S.S. *Avagyee* in proceeding down the river during a strong flood-tide fouled the barque owing to eddies. Value of damage to the *Norwester*, ₹150. No cargo lost. No loss of life.

[A Departmental Committee of Inquiry was held at the Port Office, Rangoon, on the 17th March, to inquire into the conduct of the master of the S. S. *Avagyee*, who was also a pilot holding a license for the port of Rangoon, for having brought his vessel in contact with the barque *Norwester*. The Committee were of opinion that the master of the S.S. *Avagyee* should have waited until slack water to proceed from the buoy to the Commissariat wharf owing to the eddies which prevailed in that vicinity during a strong flood-tide, at the same time the cargo boats lying at anchor in the stream was the principal cause of his vessel becoming unmanageable, he having to stop her speed whereby the *Avagyee* lost all steerage way, and that he did all he could under the circumstances to avoid a collision with the barque *Norwester*. The Committee acquitted the pilot of blame.]

89. The British Indian padow DARIA DOULAT [of Surat, 45 tons register, official number 3693, age 31 years], from Surat to Bombay, with a cargo of cotton. On the 20th March the padow proceeded down the Surat river, and when a mile to the West of the Tápti lighthouse (Gulf of Cambay) put into Hajeera to await the ebb-tide, when at 11 A.M. she ran foul of her anchor which knocked some holes in her bottom; the water rushed into her with such force that some of the cargo floated out of her. She was subsequently recovered. Value of damage to the padow, ₹150; cargo worth ₹1,772 was lost and ₹500 damaged; the remainder were saved. No loss of life.

90. The British Indian muchwa GÁVARIPRASAD [of Dholera, 23 tons register, official number 5, age 30 years], from Bombay to Surat, with a cargo of coals. On the 23rd March the muchwa was anchored off Omar in the Tápti or Surat river (Gulf of Cambay); at 12 P.M. the tide came in with such force that she suddenly turned round and capsized, and a portion of her cargo was washed out of her. She was afterwards recovered. Value of damage to the muchwa ₹ 200; cargo worth ₹ 272 was lost and ₹ 100 damaged. No loss of life.

91. The British iron screw steamer CALCUTTA [of Glasgow, 549 tons register, official number 67984], from Rangoon to Calcutta *vid* Burman coast ports and Chittagong, with 100 passengers and a general cargo. It appeared that the steamer left Sandoway on the 23rd March for Kyouk Phyou with a general cargo; at 12-30 P.M. the vessel, steering under the master's orders, was proceeding through Cheduba Straits on a N. 40° W. course, and after taking bearings in five fathoms, she suddenly shoaled to $2\frac{1}{4}$ fathoms, when the steamer touched the ground at the North end of the Strait; the North peak of Cheduba island bearing S $\frac{1}{2}$ W., and the high land of Ramree island E. $\frac{3}{4}$ S. (magnetic). It was low-water, and the sea was calm; the weather was fine but a little hazy, and calm. The master and second officer were on the bridge, and every means were adopted to ascertain the steamer's position by frequently taking bearings and by keeping the hand lead going. The master stopped the engines, but finding the steamer was not losing way, he

ordered her to go full speed ahead. The lead was hove, and it was ascertained that the vessel was carrying, before and after the accident, 7 to 5 fathoms of water; the wells were carefully attended to, and as the master found no damage, he proceeded with the steamer into Kyouk Phyou harbour the same day. No damage to the steamer or cargo. No loss of life. (The master reported that the casualty was caused by the want of buoyage, and also to the inaccuracy of the chart. He further said that this chart was an Admiralty production, and was of the latest date.)

92. The British Indian craft KADERY [of Ratnagiri, 13 tons register, official number 2719, age 25 years], from Harnai to Bombay, with a cargo of paddy. On the 25th March the craft was at anchor in the harbour of Harnai (Bombay coast); the crew were all asleep, when a strong North wind was blowing at the time, and at 11 P.M. the anchor rope having snapped, she was driven on to the beach opposite the Custom house. She was subsequently recovered. Value of damage, ₹ 100. No cargo lost. No loss of life.

93. The British Indian muchwa ESHWANTY [of Ratnagiri, 5 tons register, official number 5562], from Ratnagiri to Alibág, with a cargo of jaggery, copra, &c. On the 25th March the muchwa, whilst proceeding to Alibág, struck at 8 P.M. upon the wreck of the ship *Di Vernon* near the Alibág fort, entrance to Bombay harbour. The ship *Di Vernon* was lost ten years ago, and a part of the wreck was still visible at low-water, and the tindal, the night being dark, did not pay much attention to it, consequently the muchwa grounded, but afterwards came off again with slight damage. No cargo lost. No loss of life.

94. The British Indian craft SHAH ALUM [of Verával, 71 tons register, official number 4399], from Verával to Bombay, with a cargo of cotton. On the 25th March the craft was lying at anchor in close proximity to a reef in the inlet of Verával; at 2 P.M. she was just ready to start, and was waiting for the manifest, when by the force of the currents she dragged her anchors and was driven on to Rambora shoal (Káthiáwár coast). She was subsequently recovered with damage to the amount of ₹ 857; cargo worth ₹500 was lost and ₹1,500 damaged; the remainder were saved. The crew, 8 men, and 4 passengers were saved in boats sent from other vessels lying near by.

95 & 102. The Italian wooden barque ANTONIETTA O [of Genoa, 970 tons register, official number not reported], from Liverpool to Rangoon, with a cargo of salt. The barque, on the 22nd March, had proceeded up the Rangoon river (Burma coast) in charge of a pilot and in tow of a Government steamer (name not known) and on the same day was moored by an assistant harbour master, with 45 fathoms of chain on both sides, above the salt godowns. The master stated that on the 26th March, at about 10 P.M., he found that the barque was sheering strongly in consequence of the strength of the tides, and put extra men at the rudder, the vessel notwithstanding suddenly took a heavy sheer, and having dragged her anchors, fouled the barque *Indra*. The master said that, as far as possible, care was taken on board to avoid any serious damage by sending away the boat he had alongside discharging her cargo of salt; he also signalled to the shore with lights for assistance, but unhappily no attention was given. On the following day the master reported the particulars to the harbour master, who deputed an assistant harbour master; on having the vessel weighed both her anchors were found foul; one, however, was cleared, and the barque was anchored again with 60 fathoms of chain. On the 28th the barque *Antonietta O* dragged again and fell alongside the barque *Indra*, and to prevent any accident happening the two vessels were locked together. The *Antonietta O* was subsequently moored in a safe anchorage. Value of damage to the *Antonietta O*, ₹2,000. No cargo lost. No loss of life. (The casualty was unavoidable, inasmuch as the barque *Antonietta O* drove from her ebb anchor owing to the strong tides which prevailed at the time.)

96 & 103. The German iron barque INDRA [of Hamburg, 695 tons register, official number not reported], from Hamburg to Rangoon, with a cargo of salt. The master stated that the barque *Indra* had arrived up the Rangoon river (Burma coast), and was safely anchored above the Salt godowns. On the 26th March at the time of the accident it was ebb-tide, and the weather was fine, and the *Indra* was discharging her cargo. At 10 P.M. the barque *Antonietta O* came into collision with the *Indra,* striking her on the port bow, owing to the Italian barque *Antonietta O* having been driven by the strong tides from her ebb anchor. The master of the *Indra* said that he was on watch, and that when the barque *Antonietta O* was observed drifting towards the *Indra* he paid out about 7 fathoms of chain, but it proved fruitless. On the 28th the barque *Antonietta O* dragged again and fell alongside the barque *Indra,* and to prevent any serious accident happening the two vessels were locked together. The Italian barque was subsequently moored in a safe anchorage. Value of damage to *Indra,* ₹400. No cargo lost. No loss of life. (The casualty was unavoidable, having been caused by strong tides.)

97. The British iron screw steamer COLABA [of Glasgow, 1,070 tons register, official number 78607], from Rangoon to Bombay, with a cargo of timber. It appeared that the steamer had proceeded up the Rangoon river (Burma coast) in charge of a pilot. On the 27th March she was berthed by an assistant harbour master as near her loading mill as possible, at the special request of the agents of the steamer. The weather at the time was fine and clear, the tide was low-water, and calm, with no sea on; at 11-30 A.M., on account of the unusual fall of the tide at that season of the year, the steamer grounded aft in swinging to the flood-tide off Dalla. She floated off immediately afterwards. No damage to the steamer or cargo. No loss of life. (The master reported that, by the latest chart of the Rangoon river, the steamer should have had 21 feet of water under her at low-water, ordinary spring tides.)

98. The Native padow RUPAREL [of Cambay, 18 tons register, official number 23], from Bhávnagar to Cambay, with a cargo of wood and betnoben. On the 28th March the padow anchored at the entrance to the port of Cambay (Gulf of Cambay), but was left stranded on the ebb-tide; at 4 P.M., when the tide rose again, it came in as usual with such rapidity and force that she was thrown on her side, when a portion of the cargo was washed overboard. She was afterwards recovered. Value of damage to padow, ₹200; cargo worth ₹72 was lost, and the remainder were saved. No loss of life. (The casualty was due to the sudden inrush of the spring tides.)

99. The British wooden ship REGENT [of Liverpool, 1,289 tons register, official number 75469], from Rangoon to The Channel for orders, with a cargo of rice. On the 28th March the ship was lying moored with both anchors off the Municipal bazar in the Rangoon river (Burma coast); it was flood-tide, and the weather was fine and clear. At 9 P.M., during a strong flood-tide, the cable parted, losing the anchor and 16 fathoms of chain; the anchor and cable were eventually recovered by a buoy vessel at a cost of ₹80. No damage to the steameror cargo. No loss of life. (The casualty was accidental.)

100. The British iron screw steamer MAHRATTA [of Glasgow, 505 tons register, official number 53368], from Rangoon to Calcutta *viâ* Burman coast ports, with a general cargo. It appeared that on the 24th March the steamer *Mahratta* had safely proceeded up the Rangoon river (Burma coast) in charge of a pilot, and when in the harbour the pilot was relieved of his duties by an assistant harbour master. At 2-30 P.M. on that day she was moored in a clear berth off the Brooking street wharf. The steamer was lying in this position.

The master stated that on the 28th March he was in charge of the vessel, the weather was fine and clear, and the wind calm; at 1-30 A.M. on that day in swinging to the flood-tide, the *Mahratta* fouled the S.S. *Pemba,* striking her on the starboard waist. The *Mahratta* had her jolly boat completely smashed. Estimated value ₹300. No loss of cargo. No loss of life. (The master of the *Mahratta* stated that the accident was caused by the assistant harbour master not having allowed sufficient room to swing clear when swinging contrary ways. He spoke to the assistant harbour master regarding the casualty, when the latter said that the anchors must have come home, but this the master totally denied. It appeared that the master of the steamer *Pemba* remonstrated with the assistant harbour master when mooring his vessel stating that a foul berth had been given to the steamer *Mahratta.* This was pointed out by the master of the *Mahratta* to the assistant harbour master, who admitted having been told.

[A Departmental Committee of Inquiry was held at the Port Office, Rangoon, on the 24th April, to inquire into the circumstances attending the collision which occurred between the steamers *Mahratta* and *Pemba.* The Committee after having carefully heard all the witnesses in the matter, recorded that the evidence produced showed that the steamer *Pemba* was moored, on the afternoon of the 26th March, by an assistant harbour master (who had also moored the *Mahratta*), so close to the steamer *Mahratta* as to have involved the risk of a collision in the event of those steamers canting to the tide at the same time in opposite directions. The Committee observed that the master of the steamer *Pemba* did point that out to the assistant harbour master upon two occasions, which was admitted by the assistant harbour master. Further, the master of the steamer *Mahratta* considered it necessary to be on watch himself on the night of the 26th March when the steamers swung to the tide, he evidently being of opinion that the *Pemba* had given the *Mahratta* a foul berth. The Committee recorded that there was no evidence to show that the *Pemba* had dragged her anchors, as stated in the assistant harbour master's report, and the only conclusion the Committee arrived at was, that the steamer *Pemba* had been slackly moored by the assistant harbour master in the first instance. The Committee remarked that it regretted that neither of the masters (steamers *Pemba* or *Mahratta*) considered it advisable to communicate, either by letter or verbally, to the Marine Department the dangerous positions in which their respective vessels had been placed; had they done so, this collision would in all probability have been averted.]

101. The British iron screw steamer PEMBA [of Glasgow, 987 tons register, official number 76083], fromCalcutta to the Straits *vid* Rangoon and Maulmain, with a general cargo. The master stated that the steamer *Pemba* was brought up the Rangoon river (Burma coast) on the 26th March in charge of a pilot, and on the flood-tide of that afternoon she was anchored by an assistant harbour master off the Brooking street wharf, too close to the steamer *Mahratta.* The master, whilst his vessel was being moored, pointed out to the assistant harbour master that the steamer was not placed in a clear berth in consequence of there not having been left sufficient space to swing at change of tides. The assistant harbour master however paid no heed to the master's remarks. The *Pemba* was lying quietly in this position, moored ebb and flood; the quartermaster, who was on watch at the time, said that there was fine clear weather on the 28th March, the wind was light, and the flood-tide had just commenced to make. The steamer *Pemba* was swinging to the flood between 1 and 2 o'clock on that morning, when her starboard waist came into collision with the S.S. *Mahratta,* thereby doing considerable damage to both vessels. The *Pemba* had her starboard cutter and the accommodation ladder seriously injured.

Estimated value not reported. No cargo lost. No loss of life. (The master of the steamer *Pemba* reported that the assistant harbour master stated that that steamer had dragged her anchors since being moored, which statement was denied by the master of the *Pemba,* who said that he could have proved by the state of the cables and the steamer's position relative to vessels ahead and astern that such was not the case.)

102. ANTONIETTA O. *(See paragraph 95.)*

103. INDRA. *(See paragraph 96.)*

104. The British Indian craft DAMANI [of Alibág, 5 tons register, official number 303, age 40 years], from Revdanda to Alibág, with a cargo of firewood. On the 29th March the craft, whilst sailing out of Revdanda river (Bombay coast), owing to the force of strong northerly winds, struck on the rocks to the North of Korlai fort, and all the cargo was thrown overboard. She was subsequently recovered with little or no damage. Cargo all lost; value ₹132. The crew were saved in boats belonging to other vessels which were lying at anchor close by.

105. The British iron screw steamer ZAFIRO [of Hong-Kong, 675 tons register, official number not reported], from Aberdeen to Hong-Kong, with a cargo of coals. On the 29th March the steamer was proceeding through the Gulf of Aden, steering on an E. by S. ½ S. course; there was a gentle breeze from the eastward, the weather was fine and clear, and the sea smooth; at noon of the same day, when about 220 miles eastward of Aden, in latitude 12° 03′ N., longitude 47° 54′ E., the steamer met with an accident to her machinery owing to a crack in the casing of the high pressure cylinder. She put back to Aden for repairs, and afterwards proceeded again on her voyage. No damage to the steamer or cargo. Value of damage to the engines not reported. No loss of life. (The cause of this casualty was not reported.)

106. The British iron screw steamer NERBUDDA [of Glasgow, 1,948 tons register, official number 86747], from Calcutta to Bombay *viâ* coast ports, with a general cargo. It appeared that the steamer left Calcutta on the 4th March, and after touching at several ports arrived at Cochin on the 28th; she left that port at 9 P.M. on the next day bound for Calicut. The master stated that he turned in at 11 o'clock that night, but before doing so he looked round, as customary, and noticed nothing unusual about the weather. There was a light wind, and it was slightly hazy; the steamer was 5 or 6 miles from the coast, and the master thought he saw the land dimly. The course she was going was N.W. by N. ¾ N., the engines were making 42 revolutions, and the steamer was proceeding about 7 knots an hour. There was a light head wind; and before retiring, the master gave the third officer written instructions in the night Order Book to take a cast of the lead every half hour, and to let him know if he got less than 10 fathoms or more than 16 fathoms of water; to have the lights well trimmed and to keep a sharp look-out for passing vessels, especially native craft, and to give them a wide berth, &c., and to call him at daylight. This book was kept in the wheel-house, and was signed by the officers as they took charge of the steamer. It was signed on that night by the third officer, and afterwards by the second officer who relieved him at midnight. The master left the third officer in charge of the deck, who reported that the night was hazy. It was a whitish haze of such a description as to have made it difficult to have seen a sail until the vessel got close to it. The second officer stated that he went on watch at 12 o'clock and relieved the third officer. It was a hazy night, and there were a few stars visible overhead, but none around; he kept a sharp look-out; up to a quarter to 3 A.M. on the 30th March there had been no change in the weather. About that time a khalassie (man on the look-out) reported a pattimar. The second officer stated that he was walking up and down the deck about midships, when he heard the man call out. He shouted very loud, so that he could not catch

anything else but that it was a pattimar. The second officer then took up the binoculars to look for it, and on going towards the starboard side, called out to the look-out man forward to come aft, because he had shouted unusually loud, and also as nothing could be seen at the time. Directly afterwards the second officer heard shouts ahead, and looking that way with the glasses observed some kind of vessel, so he called out to the seacunnie below to inform the master. The second officer thought that a collision was imminent, as the vessel was nearly ahead but slightly on the port bow; he immediately ordered the helm hard-a-port, and by the time the helm was over the master was on the bridge. He asked the master what to do with the engines, when he was told to reverse them full speed astern. The second officer sounded the telegraph, which was at once answered, when, unhappily, at 3 A.M., the steamer *Nerbudda* came into collision with the barque *Asie Mineure* off Chowghât or Palm river, about 17 miles S.E. of Ponáni port, in latitude 10° 31′ N., longitude 75° 55′ E. (Malabár coast), striking her abaft the main rigging on the starboard side. The second officer stated that he could only account for the accident in not having seen the *Asie Mineure* earlier owing to the weather being hazy, and the angle at which the steamer was proceeding up to the barque being almost in a line with her yards, from her being very low in the water, and her not having a light. The master stated that after he turned in he went to sleep, and was awoke by an unusual sound, believed to have been the noise of the wheel and the shouting. He next went on the upper bridge and sighted a vessel close to the steamer, slightly on the port bow, but very nearly right ahead. He asked the second officer how the helm was; the latter replied hard-a-port. The master ordered the engines to be put full speed astern; no sooner was the order carried out than the collision occurred. The master further stated that the weather at the time of the accident was much hazier than when he turned in; that when he first sighted the *Asie Mineure* he considered she appeared to have been twice the length of his steamer off. He was of opinion that if the *Asie Mineure* had shown a light over her stern the accident would not have occurred, and also that the barque was not seen in sufficient time to avoid the collision. About the time of the casualty there were two khalassies in the bows keeping a look-out, whilst two other khalassies were keeping a look-out on each side of the lower bridge; there was also a seacunnie stationed in front of the chart-room on the lower bridge for passing orders, and another seacunnie at the helm on the upper bridge. The steamer was being steered by steam. The look-out man stated that he called out twice to the second officer, who was on the bridge, at intervals, that there was a "pattimar ahead," and on each occasion got the reply of *achcha;* that after the second hail the second officer sent for him; that he came aft to the officer on the upper bridge and told him that the pattimar was close to, ahead, and that after he got back to the forecastle head the collision occurred. This statement was corroborated by the other look-out men. The seacunnie at the wheel stated that he only heard one man call from the forecastle, but there might have been others; that he could not have heard, as he was attending to his work. All the witnesses from on board the *Nerbudda* stated that they saw no light on board the barque before the accident. After the collision ropes were thrown from the steamer to the barque, and two of the men from the latter vessel climbed up into the steamer. The master of the *Asie Mineure* having called out that his vessel was sinking, two boats were immediately lowered from the steamer and sent to the barque. At the time that they reached the *Asie Mineure,* the two vessels were some distance apart, and the barque sank before the boats could get alongside. The boats rescued the master and twelve of the crew from the water, and from the yards of the vessel which were above the water after she sank, and put them on board the steamer; and four were saved in the barque's boat. On their being mustered on board the *Nerbudda*

four hands were found short; one of the boats was immediately sent in search of them, but the missing men could not be found, notwithstanding the very long search made. The S.S. *Nerbudda* remained by the wreck till daylight. At that time the topgallantmast was visible above the water, and after the position of the vessel was ascertained the master set his course for Calicut, which port he reached on the same day, and landed the ship-wrecked crew of the *Asie Mineure.* The *Nerbudda* was detained in Calicut roadstead for two days, after which she proceeded on her voyage to Bombay with the master and crew of the *Asie Mineure,* where she arrived on the 8th April. No damage to the steamer *Nerbudda.* No loss of cargo. No loss of life.

[A Special Court of Inquiry was held at Bombay, in the Chief Presidency Magistrate's Court, on the 16th, 19th, 21st, 22nd, 23rd, 25th, and 26th April, under the provisions of sections 7, 8, and 9 of the Indian Merchant Shipping Act V of 1883, to investigate the circumstances connected with the collision which occurred between the S.S. *Nerbudda* and the barque *Asie Mineure,* resulting in the foundering of the latter vessel and the loss of four of her crew. The Court recorded that on reading the papers received with the Resolution of Government appointing the Court, it appeared that this investigation was likely to involve the consideration of the question as to the cancellation or suspension of the certificate or certificates of some one or more of the officers of the two vessels; it therefore, under section 13 of the above Act, appointed as its assessors two persons having experience in the Merchant Service. The Court charged the second officer of the S.S. *Nerbudda* with misconduct; that he on the morning of the 30th March, whilst on watch and in charge of the S.S. *Nerbudda* as such second officer, acted wrongly and made default in not keeping a careful look-out whereby the barque *Asie Mineure* was not discovered in time to prevent his vessel coming into collision with the said barque, and in not taking prompt measures to avoid the vessel on her first being reported. The Court also charged the first officer of the barque *Asie Mineure* with misconduct; that he on the morning of the 30th March, whilst on watch and in charge of the barque *Asie Mineure* as such first officer, acted wrongly and made default in that after he saw a white light astern of him, and which he ought to have known was in all probability a steamer coming up the coast, he did not attempt to carry out the provisions of Article XI of the Rules and Regulations for preventing collisions at sea by showing from his ship's stern a white light or a flare-up light. After having carefully considered the evidence, the Court were of opinion that the collision between the barque *Asie Mineure* and the S.S. *Nerbudda,* and the loss of the *Asie Mineure,* together with the loss of four of her crew, occurred through the default of the second officer of the steamer, who was on watch at the time. The Court recorded that most of the evidence was of a conflicting nature, particularly as to the time, the weather, and the distance. The Court were also of opinion that the weather was not more than ordinarily hazy, and that such a large mass of sail as the barque carried must have been visible at a much greater distance than the distances mentioned by many of the witnesses. At all events the vessels were sufficiently far from each other to have enabled the steamer to have got out of her way, whichever way her helm was put the officer of the watch should have acted directly the pattimar was reported ahead. The Court saw no reason to discredit the evidence of the look-outs in the bows of the steamer, whose evidence was corroborated by the look-outs on the bridge as to the dilatory manner in which the second officer acted. He was aware of the Rules of the Road to be observed at sea, and he had command of the road whilst the sail ahead with light winds was quite at his mercy. His steamer was going at the rate of 7 knots an hour, and he had received orders from the master in writing, which he had signed, to keep a sharp look-out for passing vessels, especially Native craft,

and to give them a wide berth. But he appeared to have contented himself with simply listening to the hail of the look-outs twice, and when he heard it the second time, did nothing more than call the man aft, and by the time the man again got forward he suddenly realized his position, but then it was too late. He only put his helm hard-a-port, doing nothing with the engines, which omission he left for the master to repair, who immediately came on deck and ordered the engines to be reversed full speed astern. The second officer stated that when he heard that a pattimar was ahead he looked for her; but he ought to have known at the rate his vessel was going it was incumbent upon him to have taken immediate steps to have got out of the way either by the free use of the helm, or stopping, or reversing, the engines, as the necessities of the case required. As regards the barque, the Court were of opinion that the first officer, as officer of the watch, was in default for not having seen that a stern light was put out as the steamer neared the barque, and that he did not act in accordance with Article XI of the Regulations for preventing collisions at sea. It appeared to the Court that there would have been ample time to have put out a stern light. It was the duty of the first officer to have been prepared for all contingencies, and not to have waited until certain emergencies arose before preparing for them. It was possible, if a stern light had been put out, that the officer of the watch on board the steamer might have shown more alertness, and it would have thrown the onus upon him of keeping his steamer clear. In other respects everything seemed to have been done on board the barque to avoid the collision. The Court considered that some blame was attachable to the master of the *Asie Mineure* for not having shown more alertness himself. The Court observed that he was aware of the Rules of the Road at Sea, and the Court pointed out that as his first officer continually referred to him whilst the steamer *Nerbudda* was coming up, he should have told his first officer not to have forgotten the stern light if it was necessary to have put it out. The Court gave little credit to the statement that the light on the barque's skylight was easily visible as far as any distance. It must be remembered that it was in her hatchway which had covers or lids which again had brass work on them, and that the lantern had a covered top, and that the wheel and steersman and other obstructions must have been in the way of its showing at all clearly. The Court recorded that both the master and first officer of the S.S. *Nerbudda* acted with promptitude and decision, and the manner in which the latter assisted in rescuing the crew of the barque *Asie Mineure* was deserving of great credit. For the reasons above stated, the Court considered that the second officer of the S.S. *Nerbudda's* certificate of competency be suspended for six calendar months. As regards the certificate of competency of the first officer of the barque *Asie Mineure* (a Native), it having been granted by the Local Government of Madras, the Court considered that they had no power to interfere with it.]

The Governor of Bombay remarked that the certificate of competency of the second officer of the S.S. *Nerbudda,* which had been suspended by the Court for six months, should be forwarded to the Port Officer of Bombay, with an intimation that it should be retained in his possession for delivery to the owner on the expiry of the term for which it had been suspended.

(For an account of this collision see Wrecks No. 12.)

107. The British Indian padow RUPARELL [of Mahim, Konkan, 9 tons register, official number 809, age not known, but supposed to have been very old], from Dántivra to Bombay, with a cargo of firewood. On the 31st March, when near the railway bridge at Wadiw in the Dántivra creek (Bombay coast), the padow in consequence of rough weather sprang a heavy leak and sank. She was afterwards recovered with little damage. The cargo was all lost; value

₹160. The crew, 7 men, were safely landed ashore in a toney sent to their assistance by the people on the bridge.

108. The British Indian mahangiri SURYABAN [of Rái, 7 tons register, official number 1928], from Utan to Bombay, with a cargo of grass. At 2 P.M. on the 31st March the mahangiri, when off the village of Vesáva (Bombay coast), the wind having suddenly shifted round, the sail got aback, when she immediately capsized. She was afterwards recovered with little or no damage. Cargo all lost; value ₹120. The crew, 9 men, were picked up by men from other vessels near by. (The casualty was attributable to stress of weather.)

109. The British wooden barque PAZ [of Liverpool, 290 tons register, official number 84080], from Calcutta to Port Elizabeth, with a general cargo. On the 1st April the barque, under pilotage charge, was proceeding down the Hooghly river under sail; at 8-30 A.M. the tide being one-third ebb, the barque was standing down abreast of Pir Serang on the port tack with the wind from the S. E., the wind suddenly shifted round to S. W., taking the vessel all aback and gave her stern-way. The pilot attempted to fill on the starboard tack, and the vessel's head not paying off quick enough, the order was given to drop the port anchor, but unfortunately the chain got jammed. The starboard anchor was let go, but before it could be dropped, the port anchor cleared and ran, and the vessel in swinging to her anchor tailed the Dingywallah's flat opposite Kaffry point and swung again, head down the river. The barque being still fast, the pilot ran a kedge out right ahead, but when the flood came in she dragged both bower and kedge anchors until she headed S. E., the crew giving her a little chain from time to time to hold her. In the meanwhile the pilot tried to get boats to take out a bower anchor and chain, but was unsuccessful. On the evening of the same day the master proceeded up to town (Calcutta) to obtain the aid of a steamer, and returned the next day with the India General Steam Navigation Company's steamer *Gauhati,* but it was too late to haul her off on that morning's tide; neither were efforts made on the night flood-tide, as it did not rise high enough. On the 3rd, the *Gauhati* went under the barque's bows and took out and laid the starboard anchor in 6 fathoms of water with 55 fathoms of chain. The steamer also picked up the kedge and the port anchor, which had dragged into shoal water, and placed them in 8 fathoms of water in mid-channel. The pilot then hove both chains quite taut; the master proceeded up to town in the *Gauhati,* and returned on the 4th with cargo boats. After discharging a portion of the cargo, the *Gauhati* got alongside, and at 8 P.M. on the 5th, went ahead of her and finally succeeded in towing the *Paz* off. The barque was aground for five days. The pilot subsequently hove up both anchors and brought up in mid-stream in 7 fathoms of water, and after reloading her cargo, she safely continued her voyage. Value of damage to the barque and cargo ₹2,000. No loss of life. (The occurrence appeared to have been accidental, and no blame was attributable to the pilot. No serious damage was believed to have been sustained, so the vessel proceeded to sea.)

110. The British Indian muchwa KHENGATY [of Alibág, 5 tons register, official number 253, age 30 years], from Alibág to Bombay, with a cargo of water-melons. On the 2nd April the muchwa was dashed upon a rock to the South of Kolaba fort, entrance to Bombay harbour, owing to the strong winds, and filling rapidly with water, she sank at 6 A.M. She was afterwards recovered with little damage; cargo was all lost; value ₹130. The crew, 6 men, and 3 passengers were saved in boats sent from other vessels.

111. The American wooden barque MARIAN KING [of St. Andrews, New Brunswick, 939 tons register, official number 59376], from Chittagong to False Point, in ballast. It appeared that application was made by the Agents of the vessel for portage bills to be made out on the 29th March when

the draft was stated to have been 9 feet 6 inches, so the bills were accordingly made out and paid by the Agents for that draft. On the harbour master and the pilot going aboard on the 2nd April, they perceived that the vessel's draft was really 13 feet 6 inches and not 9 feet 6 inches, as stated previously, whereupon the pilot was sent by the harbour master to the office to get a supplementary bill the extra pilotage. During the pilot's absence the flood-tide made and the master returned on board and asked for the pilot when the harbour master informed him of the occurrence. The master thereupon said that he did not require a pilot and would take his vessel to sea himself. The harbour master refused to cast the barque off the swinging buoy without a pilot being on board; on the master persisting in casting her off himself, the harbour master called his boat alongside and left the vessel, relinquishing charge to the master. The master then cast off from the buoy and proceeded in tow of the steam launch *Python* down the Kornafuli river without having a pilot on board. The barque, under command of the master, grounded on the bank the same afternoon off the Gupta khali crossing, S. E. of Lukhia (Chittagong coast). The *Python* assisted by running out an anchor with 90 fathoms of chain into deep water, but failed to move the barque. The master then went to town to obtain assistance and returned with the Port Officer and some of his assistants. The vessel was subsequently got afloat, after having been aground for over 36 hours, by the indefatigable exertions made by the Government steam launch, the Heave-up boat, and the Port Department after considerable trouble by running out anchors, &c. The barque was eventually towed by the *Python* safely over the bar to sea. Value of damage to the *Marian King,* ₹500. No cargo on board. No loss of life.

The Port Officer of Chittagong stated that he had enclosed a Board of Trade form asking the master to fill it up, and at the same time particularly warning him to give full information relating to the casualty, but he, however, returned the form with a very meagre report, thereby disregarding the orders issued by that officer. The attention of the Government was called to the imperfect manner in which the master of the *Marian King* had filled a form, whereupon the Lieutenant-Governor of Bengal remarked that for the master's refusal to take a pilot whilst leaving the Port of Chittagong, no proceedings could be taken against him, as pilotage was not compulsory in the Kornafuli river, section 38 of Act XII of 1875 not having been extended to Chittagong. Neither could any inquiry have been held under Act V of 1883, for no *material* damage had happened to the vessel. In the matter of the master's alleged omission to give notice of the grounding, the Lieutenant-Governor observed that he did actually give notice, though not to the full extent required for the purposes of the Indian Wreck Register. Moreover, he was not charged with any omission to give notice to the Port Officer of Chittagong, but simply with neglecting to fill up the Board of Trade form sent to him in the manner requested by that officer. No doubt the form, as filled up, was insufficient for departmental purposes, but it must nevertheless be taken as fulfilling the requirements of Act V of 1883. The conduct of the master in not properly filling up the casualty form was, however, brought to the notice of the Board of Trade. The origin of the complication in the above matter seemed to the Lieutenant-Governor to have been the sending away of the pilot to the Agents when the barque was ready to start with the turn of the tide. It was not clear how, in the first instance, the bill for pilotage was made out for a draft of 9 feet 6 inches when the real draft was 13 feet 6 inches. Apparently there was some mismanagement to render such an error possible, but when the actual draft was discovered almost at the moment when the vessel was going to start, it would have been better if the pilot had been left on board. The full amount of the pilotage could have been recovered from the Agents afterwards.)

112. The British Indian craft SURYABAN [of Panvel, 9 tons register, official number 2945], from Trombay to Thána, with a cargo of salt. On the 3rd April the craft, after leaving the Trombay Preventive Station, was upset owing to its having struck on the fishing stakes at Mahapur in the Pawai creek, Bombay harbour. The casualty was caused by a violent gust of wind, and her timbers having opened, the whole of the cargo was washed out of her. She was afterwards recovered, and sustained slight damage. Cargo, value ₹680. The crew, 6 men, were saved by clinging on to the keel of the craft after she capsized.

113. The Austrian iron screw steamer DAPHNE [of Trieste, 1,264 tons register, official number not reported, belonging to the Austro-Hungarian Lloyd's Steam Navigation Company], from Calcutta to Trieste, with a general cargo. On the 4th April the steamer was proceeding down the Hooghly river under charge of a pilot; at 2-30 P.M. there was 5 feet showing at the Moyapur semaphore, when the pilot proceeded with the vessel; the report of the previous day gave Fairway and the Western Fairway 15 feet 6 inches, and the steamer, drawing 18 feet 6 inches, touched the ground whilst crossing the Moyapur flat during the last-quarter ebb. The fairway marks were exactly on, the bearing of Devil's point mark was E. S. E., distant about 600 yards, and the red Nun buoy S. $\frac{3}{4}$ E., distant 300 yards. The *Daphne* remained aground for an hour and a half, when she floated off as the flood-tide rose to 6 feet. No damage to the steamer or cargo. No loss of life. (The occurrence was due to an alteration in the channel.)

114. The British Indian craft SAKRI SALAMATI [of Panvel, 10 tons register, official number 3045, age 26 years], from Thána to Bombay, with a cargo of hay. On the 6th April the craft anchored at Ghansoly, Bombay harbour, on account of the ebb-tide and contrary winds; at 4-30 P.M. she heeled over on her side owing to a violent gust of wind; the water rushing in, all the cargo was thrown overboard. She was subsequently recovered with slight damage. The cargo was all lost; value ₹120. The crew were saved in a canoe belonging to the shore.

115. The Dutch iron screw steamer CELEBES [of Amsterdam, 1,423 tons register, official number not reported], from Glasgow to Pulo Penang, with a general cargo. On the 10th April, at about 8-30 P.M., when off the Farisan islands in latitude 16° 40′. N., longitude 40° 48′ E. (Red sea), the steamer met with an accident by the high pressure piston and condenser door having broken. The steamer was steering at the time on a S. E. course with no sails set; the weather was cloudy and the sea rough; the wind was a strong gale from S.S.E. The *Celebes* subsequently put into Aden for repairs. No damage to the steamer or cargo. Value of damage to the machinery not reported. No loss of life. (The cause of this casualty was not reported.)

116. The German iron screw steamer AFRICA [of Bremen, 1,620 tons register, official number not reported], from Rangoon to Malta, with a cargo of rice, for orders. At 4-45 A.M., on the 11th April, the steamer, in charge of an assistant harbour master, weighed anchor and went ahead slow preparatory to proceeding down the Rangoon river; the assistant harbour master found that the vessel was not steering properly, and pointed it out to the master, telling him that if the steamer could not do better she would probably go ashore. The *Africa* continued going ahead for about twenty minutes, and then shortly afterwards stopped steering by steam when the hand-gear was used. At this time she steered a little better, the engines going full speed, and when nearing Messrs. Mower, Burn's mills the engines were slowed, she being in slack water and her bow pointed towards Dalla, the helm was starboarded; she recovered herself and went on all right, when suddenly she took a sheer towards Rangoon; the assistant harbour master, on noticing this, immediately ordered the helm to be

put hard-a-port, but the steamer would not answer, and eventually grounded at 5-45 A.M. on the Ahlón sands in the Rangoon river (Burma coast). The engines were then reversed full speed astern for a quarter of an hour, but to no purpose, as she would not come off the bank. She remained aground for ten hours, when she floated off at 3-45 P.M. the same day. No damage to the steamer or cargo. No loss of life. (The assistant harbour master reported that the accident was attributed to the steamer *Africa* not answering her helm in the slack water.)

[A Departmental Committee of Inquiry was held on the 23rd April at the Port Office, Rangoon, to inquire into the cause which led to the grounding of the German steamer *Africa*. The Committee recorded that, in summing up, it would invite the attention of the Port Officer to the fact that there was no evidence for the prosecution owing to the S.S. *Africa* having gone to sea since the accident, and no report of the occurrence having been sent in by the master of the steamer; also that the master of the German barque *Germania* had left the port of Rangoon, hence the difficulty of forming an adequate opinion upon the subject. The assistant harbour master had the reputation of being a careful and skilful officer, and the Committee taking this fact into consideration were not prepared, under the circumstances, to attach any blame to him. The Committee observed that from the pilot's report it gained the fact that owing to the steamer *Africa* not steering well when using the steam gear he stopped the vessel for twenty minutes to ship the hand-steering-gear when she steered a little better, which statement showed that the steamer was not one of the best steering vessels, and that the ebb-tide (at that time running) acting on the vessel underneath in an opposite tendency to the surface current was, together with the indifferent steering, the cause of the accident. The pilot was therefore acquitted.]

117. The British iron screw steamer SPEKE HALL [of Liverpool, 1,731 tons register, official number 78783], from Liverpool to Calcutta, with a general cargo. On the 13th April, the steamer, in charge of a pilot, was proceeding up the Hooghly river. The pilot stated that at 1-30 P.M. after sighting the dâk boat coming out from Luff point, he ordered the steamer to go slow so as to pick up the boat in order to send some letters and papers up to town. Before the boat could come up the steamer stopped for a minute and then went on slow; when the boat was alongside the engines were increased to half speed, and then to full speed directly the boat left. The pilot stated that he was heading for the clump of trees above Puppies parlour when the engines went half speed, and thought she was going on full speed when he gave the order to do so; on being afterwards told by the master that the vessel was not going full speed, he issued orders two or three times to put the helm hard-a-port, but it was not carried out; then as he heard the steam gear working it over, he directed the helm to be put hard-a-port and full speed ahead seeing that the steamer was going for the bank. The master then sang out—"pilot, you had better go full speed astern," but the pilot called out "no; hard-a-port, full speed ahead." At this time the pilot was on the upper bridge, the telegraph on the lower bridge, and there was no officer with the pilot on the upper bridge. The pilot stated that he was positive that the master was passing his orders, and that there was no tell-tale to indicate how the vessel was steaming or sheering. Immediately after casting off the dâk boat, there was another boat which the pilot was trying to clear. This boat was pulling right across the steamer's bows, the pilot therefore starboarded the helm, but the boat having pulled back the other way, it was ported. The boat eventually passed the steamer on the starboard side after the helm was ported and starboarded two or three times, the steamer then being more on the sand side of the channel. The pilot starboarded to avoid running the boat down, when the steamer slued in

towards the bank. She seemed to answer her helm a little at first, but then slued in again, when she grounded with her stem on the bank in Hooghly bight just above the Puppies parlour; the Hooghly point semaphore bearing N.N.W., the Tumlúk or Gewankhali temple W.N.W., and Luff point E.N.E. Immediately before the steamer took the ground the engines were reversed full speed. In the meanwhile the cargo was discharged into boats from the fore-hatch. On the morning flood-tide of the 15th she floated off with the assistance of the steam-tug *Hunsdon* after discharging about 200 tons of cargo. The steamer was aground for two days. Lloyds' Surveyor reported that a careful survey was made afloat and an examination of the bottom outside by divers, and as she had sustained no damage it was recommended that the *Speke Hall* should be put into dry dock when she reached home. Value of damage to the steamer and cargo ₹3,000. No loss of life. (The pilot stated that he would have cleared the bank had the steamer gone full speed and had the helm been put hard-a-port. The master asked the pilot some five or six times before the second slue to go astern full speed; he was trying to assist the pilot in telling the man not to give so much helm, but his interference was causing interruption.)

[A Departmental Committee of Inquiry was held at the Port Office, Calcutta, on the 23rd April, to inquire into the cause of the grounding of the steamer *Speke Hall* on the following points:— (1) Whether the dâk boat was too far up the river; and if so, (2) whether the pilot should have stopped for her at all; and (3), whether the accident might have been avoided had the pilot stopped and reversed sooner in any other manner. The Committee after having heard all the evidence in this case, were of opinion that the dâk boat was in an improper place for boarding; but it was not the direct cause of the *Speke Hall* grounding, and that it was not advisable for vessels to stop at the lower part of Hooghly bight on a strong flood-tide with the usual accompanying eddies. The boat ahead seemed to have been the cause of the vessel sheering into the eddy-tide, when she became uncontrolable, and would in all probability have grounded had she gone astern when the master asked the pilot to do so. The Committee were of opinion that the dâk boat should not have attempted to board ships at this particular place.]

The Port Officer recorded that the steamer *Speke Hall* was proceeding up the Hooghly river with the flood-tide, and the dâk boat was fallen in with higher up the river than her proper station off Diamond harbour, and in an unsuitable position for a vessel to stop for her to board. As it was not considered, however, that this was what led to the steamer grounding, he would deal with this question separately. On the dâk boat leaving, the steamer was ordered by the pilot ahead half speed and then full speed. It clearly appeared that the latter order, if given, was not carried out, but that the vessel continued at half speed only, and this point was referred to the master, who stated that the pilot's order was "half speed" and not "full speed." Whether a vessel was going half speed or full speed in a strong tide with eddies was a most material point, and if the pilot was under the impression she was at full speed it might have been a serious one. It was clear that the greater speed the vessel had the more powerful the effect of the rudder would have been to keep the steamer from being taken off her course by eddies, or to recover herself after having taken a sheer. The presence of the second boat crossing her bows, which had to be avoided, was the proximate cause of the casualty, as it was in avoiding the boat that the steamer was caught in an eddy, and the Committee were of opinion that had she been put astern full speed when the eddy turned the vessel round, she would still have probably grounded, although no doubt the steamer would not have been so hard aground. The discretion in such a moment must rest with the pilot; it was no uncommon thing for a vessel to be turned round in this manner, and the pilot was of opinion that had

the steamer been going full speed she would have answered her helm in time, and that as it was it appeared her head was W.S.W. or nearly on her right course when she grounded. There was a conflict of evidence as to the full speed or half speed order; the master of the *Speke Hall* denied that the pilot ordered the vessel full speed; and the second officer, who was in a position where he must, he said, have heard if any order was given, did not hear it, nor in his original report did the pilot refer to it as a cause of the accident. Under all the circumstances I was not inclined to attach blame to the pilot for the accident. It was one of those cases when in a sudden difficulty the pilot had two courses to decide between, and I was not prepared to say that he took the wrong one. Even if the steamer was not leaving shortly, it would have been difficult to prove a charge against the pilot that he had made a false statement in saying he gave an order to go full speed.

The Lieutenant-Governor of Bengal enquired whether, if it were quite undisputed that the pilot in charge of the vessel gave the order "half speed," the Port Officer would still hold him blameless.

The Port Officer considered it would have been an error of judgment if the pilot had given the order half speed ahead and tried to turn the steamer without going full speed. In his opinion the alternative for safety was either full speed ahead to turn and clear the bank, or full speed astern to lessen the force of the grounding. But this error of judgment would have been a small fault compared with that of attempting to throw the blame on the master if the pilot really did not give the full speed order. On the other hand, it was urged that the pilot was alone on board, and the officers and others in the steame were strongly tempted to combine against the pilot to clear themselves of blame, or from fear or other motives to give evidence that would have been in accordance with the master's account.

118. The British iron screw steamer SHAHJEHAN [of Liverpool, 1,036 tons register, official number 78839], from Calcutta to Colombo *viâ* Burman coast ports, with a general cargo. On the 15th April the steamer in pilotage charge was proceeding down the Hooghly river; at 8-30 A.M., during the last quarter ebb, the pilot was turning the vessel round on her starboard helm from Hog river point on towards the opposite bank in order to anchor for the next flood. But when nearly across the channel, the pilot gave orders to reverse the engines full speed, and there being a little more delay than was expected before the engines started, caused her bow to slightly touch the flat below Fisherman's point. Immediately the vessel touched the engines started astern, when the pilot backed her into the channel and anchored. No damage to the steamer or cargo. No loss of life. (The casualty was accidental.)

119. The British iron screw steamer KINGDOM [of Liverpool, 1,414 tons register, official number 86232], from Bombay to Antwerp, with a general cargo. It appeared that on the 17th April the steamer was being moved from the East jetty by an assistant dock master to the Prince's dock entrance in Bombay harbour; at 2-10 P.M. the weather was fine with a light westerly breeze, and the assistant dock master finding that the vessel had a good deal of headway, when within about 150 feet of the centre pier, sang out to stop heaving on the starboard bow line, which was fast on centre pier, and to move the engines astern, but as the engines did not move in a reasonable time, he again sang out and ordered them to be put full speed astern, and notwithstanding this second order, still the engines did not move; whereupon, seeing that a collision was inevitable, the assistant dock master ordered the anchor to be let go when the vessel's stern was about 60 to 70 feet from the wharf. This was done, and it tended to check the steamer's headway and break the force of the collision, but the vessel fouled the inner or western end of the centre pier, doing considerable damage to two of the coping stones and to

one inner block slightly; also cutting a cane fender in two. The assistant dock master stated that some three or four minutes elapsed from the time he sang out to go astern up to the moment of the accident, yet the engines were not moved astern; and that after the collision, on squaring the steamer in the entrance, the engines could not be moved ahead for about twenty minutes. The master of the vessel was not on board when the accident happened, he being at the dock head, and saw the collision take place. At 6 P.M. the same day, the Engineer Surveyor to the port of Bombay proceeded on board the steamer then lying to the South of the Middle Ground, for the purpose of ascertaining the extent of damage, if any, she had sustained by coming in contact with the dock wall whilst proceeding out of the Prince's dock. The Surveyor reported that he examined the stem and plates outside as far as it was practicable, and with the exception of a slight abrasion about 8 inches above the water line, which was 21 inches forward, it appeared intact; he next proceeded into the forepeak, and thoroughly examined the plates, rivets, and cement, and found, with the exception of a little rust having been shaken off, caused probably by the concussion, there were no indication of any disturbance; the cement was intact and the steamer therefore was seaworthy and quite safe to proceed to sea; she accordingly left for Antwerp at 7-30 P.M. The Surveyor stated that the cause of the steamer *Kingdom* coming in contact with the Dock wall, as she did, was due to her engines not being put astern when ordered to do so, and on inquiring from the chief engineer of the vessel, it was proved that the accident was owing to the high pressed slide valve being off the face, thereby allowing a certain amount of back pressure to accumulate in the receiver, thus causing the engines to be comparatively in equilibrio for the time being. Value of damage to the steamer not reported. No loss of cargo. Damage to the centre pier, &c., ₹200. No loss of life. (The assistant dock master reported that had the engines worked according to the instructions given by him through the telegraph, no accident would possibly have occurred. Except that, there was no neglect of reasonable precautions required for moving the steamer *Kingdom* with safety.)

120. The British iron screw steamer SIR WILLIAM ARMSTRONG [of Newcastle-on-Tyne, 1,474 tons register, official number 88772], from Newcastle to Bombay, with a cargo of coals and coke. The steamer left Newcastle-on-Tyne on her first voyage on the 22nd March, loaded with coal and coke, bound for Bombay *viâ* Suez canal. It appeared that the vessel was proceeding down the Red sea, and nothing of importance occurred till the 16th April. The master stated that from noon of the 16th April to noon of the 17th the vessel ran 192 miles, by observation; that on the 17th at noon his position was 14° 31′ N. latitude, and 42° 32′ E. longitude, by observation. The course then steered was S. by E. ¾ E., magnetic, with a deviation to the eastward of half to three quarters of a point. That course was kept until 3-30 P.M. when they were passing Jebel Zúkur and Abú Ail islands, when it was altered a quarter of a point. At 6 P.M. that day, the position was obtained by cross bearings of Haycock island and the edge of the East end of Jebel Zúkur, the former bearing W. by N., and the latter N. by W. ½ W., with half a point of Easterly deviation to be allowed. The master after this shaped his course S. by E. ¼ E., magnetic, and continued on that course up to 7 P.M., when it was altered a quarter of a point to the southward. The magnetic course was then S. by E., and that course was continued on until Perim island light was sighted at 1-40 A.M. on the 18th. The master sent a man aloft at 25 minutes or half past 1 o'clock to look for the light. He was the first to see the light; he stated that when he saw the light he never thought about anything else, as he had made sure it was 22 miles off; he depended on the light being visible 22 miles by Findlay's Directory, which said that the light

was visible in clear weather 22 miles, and by the directions in his chart. During the five or six times that he had passed the light before at night it had been visible at 22 miles. It was an exceptionally bright night, the moon being full. After sighting the light the master stated that he immediately fixed his position on the chart; he then steered direct for the light on a bearing of S.E. ½ E., there being a point and a half deviation on this course to the eastward; the magnetic course was S.E. by S. The master said that he expected to have seen the light at about one o'clock, but he accounted for not having seen it earlier by the wind being strong right ahead. From his position at 6 P.M., on the 17th, to the time when he saw the light he reckoned the steamer had run 56 miles, and that placed him at 1-40 A.M. of the 18th at a distance of 22 miles from the Perim island light. He said that he altered his course a quarter of a point at 7 o'clock, but he did not verify his distance in any way by the log. When looking for the light he asked what was on the log, but he did not recollect what was reported. The log gave 8 knots, and he did not think the vessel could quite have gone that; at 1-40 A.M., he consulted his chart and found that the steamer was a little to the eastward of his supposed position at that time. He did not verify his distance in any way at that time by the log. The master stated that he intended to pass through the Small Straits. At this time the first officer was on watch, and the master said that when he saw the light he considered it safe to have taken two hours' rest, as he did; had never been below since passing Jebel Teïr islands on the previous night. The master therefore took the opportunity of lying down, and for that purpose he went and lay down on the settee in his cabin which was in the poop, but he never intended to have gone to sleep when he went below. He told the first officer to keep the light right ahead and to call him in two hours, and he specified the time. He said "see, it is 1-40 now, and call me at 3-40." Those were the only orders he gave his first officer. At that time the master went below there was a look-out man forward, a man at the wheel, a man about the deck, and the first officer and the boatswain on the bridge. The first officer stated that on the 17th of April they ran 88 miles by the log from 4 A.M. to 4 P.M.; 16 miles from 4 P.M. to 6 P.M.; 11 miles from 6 P. M. to 8 P. M., there being a strong head wind; 32 miles from 8 P.M. to midnight; that the log was running from then until the vessel grounded and showed 34 miles; that he went on watch at midnight on the 17th. It was a clear night. After the Perim island light was sighted he received orders from the master to steer right for it and to call him at 20 minutes to 4 o'clock; that afterwards he steered the steamer as straight for the light as possible. The loom of the land gradually appeared, and he first saw it about half an hour before he called the master, and he thought the land was then about 11 miles distant. The boatswain stated that after 3 o'clock he first noticed the land, but could not say the exact time. He noticed it about 3 points on the starboard bow, and looked like high land. He told the first officer that the vessel was going rather close to the land, so he sent him down to look at the time. He saw the time; it was 3-30 A.M., and he went back and told the first officer, who said that he was going to call the master at 20 minutes to 4 o'clock. When the first officer went to call the master at 20 minutes to 4 he thought the vessel was about 6 miles off the land. He had no idea the steamer was in danger, and said he knew the range of the light was 22 miles, and that the vessel could not have run that distance in the space of two hours; that he did not consult the charts that night on board, but only looked to see what the range of the light was. He did not know that there was a shoal extending to the northward of Perim island, and he was not in the habit of consulting the charts. He said that this was his first voyage down the Red sea, and that the master was aware of it. The master stated that at 3-40 A.M. punctually

the first officer called him, and he immediately went on deck and observed that the vessel was very close in shore. He told the first officer this, and reproached him for not having called him earlier, and at once ordered the helm to be put hard-a-starboard; the steamer paid off 4 points, and then grounded. The master took a cross bearing of the lighthouse, and Ava point on the N.W. of the island of Perim. The result of that bearing showed him that the steamer was aground on the North end of Perim island, Small Straits, Red sea. This was about 10 minutes to 4 o'clock on the morning of the 18th; orders were given to the chief engineer to look out that no sand got into the condensers; the engines were reversed, but as it was found that the steamer did not move, they were stopped again. The master said that when he went on deck and saw the land he considered it would have been an unseamanlike thing to have stopped and reversed his engines, because the vessel was going through the water. He considered he was in danger, but the best way to get out of it would have been to have starboarded the helm and get off the land and into the channel. He said that the land was very plainly visible, and ought to have been seen 10 or 12 miles off on such a night. About half an hour after the accident two rockets were fired as a signal to the shore. Subsequently Lloyds' Surveyor went on board and cross bearings were taken; Ava point then bore S.W ½ W., and Obstruction point S. E. by E., magnetic. In the meanwhile efforts were made to move the vessel, the engines being worked as necessary. The French transport S.S. *Coreze,* which was passing at the time, attracted by the signals of distress, at once proceeded to the steamer's help. The master of the transport noticing the dangerous position of the vessel went up and offered assistance, which was accepted. She anchored about 400 yards off, and sent, at the request of the master of the *Sir William Armstrong,* 35 men on board, and hawsers were also carried from the steamer to the transport. The master finding that no lighters could be procured, threw overboard 40 tons of coke from cargo and 50 tons of bunker coal, which the master considered had lightened the vessel about 3 inches. The transport finding the steamer was slowly moving off with the assistance of her own engines, left at 2 o'clock in the same afternoon. The *Sir William Armstrong* worked from East to North in about seven hours, and finally moved off into deep water at about 6 o'clock on the evening of the 18th after having been aground for 14 hours. The wells were constantly sounded when the steamer was aground, but was making no water. After landing Lloyds' Surveyor and a military officer, the master proceeded on his voyage to Bombay, where he arrived on the 27th April. The Surveyors reported that on the 1st May they boarded the steamer *Sir William Armstrong,* lying off Cross island, Bombay harbour, for the purpose of ascertaining, if possible, the extent of damage, if any, she had sustained by the accident in the Red sea. They stated that it appeared from the steamer's log-book that the vessel grounded off Perim island early on the morning of the 18th April, Perim island light bearing S.E.½E.; the vessels's draft at that time being 19 feet 6 inches, she took the ground (which was sand and mud) abreast of the main rigging both sides, and remained there until 6-30 P.M., when after repeated endeavours she floated off. The ballast tanks being sounded (the steamer being fitted with them fore and aft) the vessel was found to be making no water, and was considered seaworthy by Lloyds' Surveyor at Perim; the vessel therefore proceeded on to Bombay, having arrived on the 27th April. The ballast tanks which were empty had been frequently sounded by the Surveyors at Bombay, and they were found not to be making any water. But the vessel having a full cargo of coal and coke on board, it was impossible for the Surveyors to examine her thoroughly until such time as her cargo had been discharged. The Surveyors therefore instructed the master to intimate when the cargo was discharged in order to allow of an examination being made. On the 6th Surveyors examined her machinery and boilers and

found them in good order, with the exception of a flaw in the forward crank pin. On the 9th the Surveyors proceeded on board the vessel lying in the Peninsular and Oriental Steam Navigation Company's dock, and found that the cargo had all been discharged. They surveyed the hull outside thoroughly, and found that a number of the butts of the garboard strake on both sides were weeping slightly; fore and aft a number of rivets were also slightly weeping in the keel, many of which were somewhat slack. There were also several slight indentations between the frames of the second and third strakes from the garboard about 10 to 12 feet abaft the foremast on the port side to just above the turn of the bilge. The whole of the bottom on both sides had the appearance of having been scraped by soft sand and mud, the vessel at the time being water-borne. There was not the slightest sign of a crack in any of the plates on either side with those exceptions; the hull appeared to have been in as good a form as when first built. The ceiling in the two forward holds not being fitted with ballast tanks, the Surveyors had it removed, and after a careful examination found them in good order and not the least strained. The cement, as far as could be seen, was intact. The Surveyors recommended the necessary repairs to be executed; they finally examined the vessel on the 16th May, and found that the repairs to the steamer's bottom, to the butts, landings, and rivets had been made good to their satisfaction, and that the vessel was seaworthy and fully able to load and continue her voyage to Europe. Value of damage to the *Sir William Armstrong*, ₹3,436; cargo, ₹396. No loss of life.

[A Marine Court of Inquiry was held at the Fort Police Court, Bombay, by the Chief Presidency Magistrate on the 21st, 22nd, and 27th May, under the provisions of Act V of 1883 (The Indian Merchant Shipping Act), to investigate the circumstances connected with the stranding of the S.S. *Sir William Armstrong,* which casualty occurred on Perim island on the 18th April. The Court recorded that on reading the papers received with the Resolution of Government appointing a Court, it appeared that this investigation was likely to involve the consideration of the question as to the cancellation or suspension of the certificate or certificates of some one or more of the officers of the *Sir William Armstrong;* it therefore, under section 13 of the above Act, appointed as its assessors two persons having experience in the Merchant Service. From the evidence before the Court it eeemed that her draft of water when she left Malta was from 19 feet 6 inches to 19 feet 8 inches; the steamer was staunch and strong and well equipped. Her crew consisted of 32 men all told, amongst them being two engineers and two mates holding certificates. The master had on board a complete set of the latest Admiralty charts for the voyage, and also charts for the Red sea and all harbours and ports likely to be touched at; besides other sailing directions he had the Red sea pilot and the 4th edition of Findlay's Indian ocean Directory. There was one chronometer which the master stated had been rated at Newcastle just before the vessel left, and it worked correctly. There were four compasses on board and two boat compasses, which were tested very frequently, but the master stated they were very much out. One compass was aft at the after-wheel; the azimuth compass, which was the standard compass, was on the upper bridge, and there was one on the wheel-house on the lower bridge by which the steamer was steered, it being corrected by the azimuth compass. There was a Bliss's patent log on board, which was always used after the vessel left Suez, but did not invariably agree with the distance run by observation. The master accounted for the accident by the Perim island light not being visible at 22 miles on the morning of the 18th of April when he first sighted it, and he believed that if he had been called five or ten minutes earlier the casualty to his vessel would not have occurred. The Court, after having carefully considered all that was brought forward, was of opinion that the stranding of the *Sir William Armstrong*

was caused by over-confidence on the part of the master in his navigation, inasmuch as he trusted to his over-judgment, and failed to apply the means that he had on board to verify his position. The Court considered that the master was not justified in assuming that, when he sighted the Perim island light, he was 22 miles off danger. According to his estimate of speed, *viz.*, 7½ knots, the steamer at 1-40 A.M. was about 20 miles from the light. The distance run by the log showed from 6 P.M. to 8 P.M. 11 miles, from 8 P.M. to midnight 32 miles, and from midnight to the stranding (when the log was looked at by the first officer) 34 miles, which, during that time, *viz.*, from midnight to the stranding about 3-50 A M., would show 9 miles an hour, and would put the steamer about 20 miles. Had the master consulted his log he would have discovered that the vessel was steaming at a greater speed than he had estimated. Even assuming that the master saw the light 22 miles off, yet the dangers on the bearing he was on lay 2 miles from the light, and the speed at which the vessel was going, though unknown to him, was calculated to put the steamer ashore at 3-50 A.M., and, according to the statement of the third engineer, she struck at 3-55 A.M. The Court considered that the master committed a grave act of indiscretion in having gone below after he had sighted the light. The Court remarked that, bearing in mind the master's constant attendance on deck all night, and that he had not been below since passing Jebel Teïr islands on the previous night, and the great reliance he placed on his first officer, they considered that he would better have fulfilled his duty, however confident he might have been of his position, if he had taken his needed rest in the chart-house on the bridge or at some place handy to a call from the officer of the watch. Had he been thus at hand, probably the stranding of the *Sir William Armstrong* would have been avoided. The Court were also of opinion that the master committed an error of judgment in having kept his vessel at full speed ahead when he suddenly found himself close to the land. When he starboarded his helm it was obvious that he should have reversed his engines full speed astern until he had satisfied himself that he was clear of danger. The Court observed that the evidence given by the first officer was most unsatisfactory. He held a certificate of competency as master from the British Board of Trade, and had been master of a sailing vessel for four years, and yet, on the morning the steamer grounded, he showed a want of ordinary intelligence and discretion. It might have been presumed that he would have shown some interest in the navigation of the vessel, especially when in the vicinity of land. But he strictly confined himself to the master's order—"see, this is 1-40 with the light in sight, call me at 3-40." He contented himself with literally carrying out these instructions. Even the remarks of the boatswain at 3-30 A.M., that the land appeared close, did not seem to have alarmed him or caused him to have been more on the alert. It was scarcely to have been credited that on such a fine clear night the land should have been so indistinct, as stated by the first officer and other witnesses. The Court were of opinion that, had the first officer shown a reasonable amount of diligence and discretion, the stranding of the vessel might have been averted. The Court observed that one nautical assessor was of opinion that the master was over-confident in his navigation, and did not take sufficient care in having verified his distances between Abú Ail and Perim islands; also that it was most injudicious to his having gone to his room to lie down after the light was sighted as that room was aft in the poop and some distance from the bridge, taking into consideration that he had been on deck for several hours previous, that it would have been better had he been obliged to leave the bridge to lie down in the chart-room. The vessel being steered by hand instead of steam at the time of the accident, he considered it was the master's duty, on coming on deck and finding the vessel so near the shore, to put the helm hard-a-starboard, which he did, and reverse the engines full speed astern. That

when he found the vessel payed off four points, he should not have steadied until he was in a position to work off the shoal. He therefore considered the master to blame on these heads, but that there had been no evidence produced to have shown any reason for dealing with his certificate. He considered the first officer showed great want of ordinary intelligence and interest in his position, as well as want of judgment, that he having been left in charge of the vessel approaching a danger, and having access to the charts in the chart-room, and the boatswain to look out for him; that he did not go below whilst he was a safe distance from the light, leaving the boatswain in charge, and he (the first officer) made himself fully acquainted with all the particulars and the dangers he was approaching, so that he might have been in a position to guard against them. That when the boatswain called his attention to the land being close at 3-30 A.M., it was his duty either to send the boatswain to call the master at once, or else stop and sound, or, at all events, consult his chart on the spot and take such precautions as a wise and prudent man would have used in such a position in charge of such valuable property. That the first officer proving himself wanting in all this was deserving of censure, as, had he even acquainted himself with the place he was going through, he could have saved the steamer touching the ground by starboarding his helm when he saw the land close and by sending for the master, none of which things he did. He also observed that his log had been kept so inaccurately that proper reliance could not be placed on it. The other nautical assessor considered that the master, on first sighting Perim island light had assumed its distance to have been 22 miles, showed too much confidence; also that he did not take sufficient care to verify the vessel's position, and that in having gone below when he did he acted very injudiciously, and that the first officer ought to have called the master sooner than he did. Had he done so, in the opinion of the nautical assessor, the vessel would not have gone ashore. In conclusion it appeared from the evidence that the S.S. *Sir William Armstrong* was placed in dock at Bombay, and on being surveyed was found to have sustained no serious damage; the slight repairs that were needed had been effected. The Court had therefore no power to deal with the certificates of the master and the first officer. The Court, however, considered that the master and the first officer were both deserving of grave censure. They were accordingly censured.]

The Governor of Bombay remarked that as the S.S. *Sir William Armstrong* did not sustain serious damage, the Court were not competent to deal with the certificates of the master and first officer, but His Excellency the Governor would invite the attention of the Secretary of State to the careless way, as instanced by several recent inquiries into the steamers *Knight of the Bath, Airy,* and *Govino,* in which steam-ships were wrecked or endangered in the Red sea.

121. The Native battalla DADMAI [of Jáfarabad, 101 tons register, official number not reported], from Broach to Bombay, with a cargo of cotton seeds, wheat, and mattra. On the 22nd April the battalla, when at the mouth of the Bhagta creek near Tárápur (Bombay coast), met with a storm by which the yards and sails were carried away; she immediately anchored, but one of the cables parted; and the battalla having sprung a leak, some of the cargo was thrown overboard. She put into Tárápur, where she was subsequently repaired. Value of damage to the battalla, ₹150; cargo worth ₹542 was lost, and the remainder were saved. No loss of life.

122. The British iron four-masted ship COUNTY OF INVERNESS [of Glasgow, 1,636 tons register, official number 76733], from Bombay to Calcutta, with a cargo of Bombay stone. It appeared that the ship had safely arrived up the Hooghly river on the 22nd April in charge of a pilot and in tow of the steam-tug *Hunsdon,* and when at Garden reach she was placed in charge of an assistant harbour master, who anchored her off Hastings' moorings, it being too late

that evening to place her in moorings. During a very severe southerly squall at 7-30 P.M. the vessel dragged her anchor with 45 fathoms of chain towards the western bank of the river; the assistant harbour master said that, owing to the lightning and heavy rain, he could not tell, nor did he think, that the ship was dragging, though he was on the forecastle head all the time and had the officers at their stations. After the squall it was discovered that the vessel was to the westward of her former position, and before the assistant harbour master had time to get her to the eastward again, she swung flood and tailed the bank off Shalimar point. It being rising tide, the *County of Inverness* drove up the bank and remained in that position until about 12-30 P.M. on the 24th, when she floated off without assistance. The vessel was aground for 30 hours, and had lain quite evenly whilst on the bank. No damage to the ship or cargo. No loss of life. (It was reported that the assistant harbour master had exercised every precaution in keeping the ship *County of Inverness* off the bank, but the squall being so severe and sudden, it was impossible to say whether the vessel was in mid-channel on account of the wind and heavy rain, although it was advisable not to have dropped the second anchor, as the ship might have been towards either side of the river, she having also so much chain out at the time.)

123. The British iron screw steamer ST. GOTHARD [of South Shields, 1,046 tons register, official number 81969], from Bushire to London, with a cargo of wheat. It appeared that the steamer was deeply laden, and was passing down the Persian Gulf from Basra; she called on the 22nd April at Bushire, and left the same day for London *viâ* Linjah. On the early morning of the 24th April the steamer grounded during half-ebb tide on the sands off the western point of Kais island. The master in order to obtain assistance from Linjah fired a few guns, but no help was procurable. The bottom where the vessel grounded was sandy, and on soundings being taken it was found that there were at the ship's bows 2 fathoms, and at the stern 4 fathoms of water. The weather was calm throughout the time the vessel remained ashore, and finally, at about midnight of the same day, she floated off without any assistance, with the exception of losing a small anchor and line. The steamer was aground for 24 hours. No damage to the steamer or cargo. Value of the anchor and chain lost not reported. No loss of life. (The casualty was caused by the carelessness of the master.)

124. The British iron screw steamer CITY OF EDINBURGH [of Glasgow, 2,092 tons register, official number 73866], from Glasgow to Calcutta, with a general cargo. The master stated that the steamer left Aden and was proceeding to Colombo; on the 25th April when in latitude 9° 21′ N., longitude 65° 43′E. (Arabian sea), the steamer was steering an E. by S. course with no sails set, but proceeding under steam. The weather was fine and clear, the wind from N.E. was moderate, and the sea was also moderate, running from the westward; at 10-30 A.M. on that day the steamer met with an accident, owing to the main shaft breaking, owing to a flaw. The *City of Edinburgh* having fallen in with the S.S. *Glendower* afterwards, was taken in tow by that vessel, and arrived safely at Colombo. A portion of the cargo was discharged, and after that she had to be lightened of a further portion of the cargo for the purpose of repairing the damage; a new stern tube was cast, and after having completed the necessary repairs, she re-loaded her cargo and left for Calcutta on the 18th June. Value of damage to the *City of Edinburgh* ₹3,678; cargo ₹46,495; machinery ₹26,744. No loss of life. (The casualty was unavoidable.)

125. The British iron screw steamer HENZADA [of Glasgow, 1,344 tons register, official number 82289], from Calcutta to the Straits *viâ* Rangoon and Maulmain, with a general cargo. On the 25th April the steamer was proceeding

down the Hooghly river under charge of a pilot; at 3-15 P.M., the steamer being nearly in mid-stream in the Dredge channel and half way between the Upper Auckland and the Lower Western Jellingham buoys, the lead was cast, and the shoal water found greatly surprised the pilot, as there were 5 feet up at the Kedgeree semaphore and 26 or 27 feet were shown on the chart; at 3-30 P.M. the steamer slightly touched the ground in the Dredge channel, but never stopped, and the lead showed not less than 20 feet of water. The pilot stated that his principal reason for reporting this occurrence was to draw the attention to the state of the channel, which had evidently altered since the last chart was issued. He added that he found no more than 17 feet reduced at the Lower Auckland buoy, where 18 and 19 feet were reported. She then continued on her voyage and got out to sea safely. No damage to the steamer or cargo. No loss of life. The casualty was accidental.

126. The Brirish iron screw steamer NUDDEA [of Glasgow, 1,940 tons register, official number 87694], from Calcutta to Bombay *viâ* coast ports, with a general cargo. On the 26th April the steamer, in charge of a pilot, whilst being turned in Garden reach in the Hooghly river at 9-15 A.M. on the last quarter of the ebb-tide, the vessel's propeller came into contact with the Lower Bishop's College sand buoy; the engines being stopped at the time, it was found that neither the buoy nor the steamer was damaged, and she proceeded down the river. At 9-30 A.M., when abreast of No. 3 Matea-bruj ghât moorings, it was perceived that the India General Steam Navigation Company's flat *Gogra* was moored in the channel off the left bank of the river instead of the right, which was against Port Rule XXIII, and consequently there was no room to pass, she having taken up the channel used by large vessels. The pilot ordered the helm to be put to starboard, but the helm of the *Nuddea* was, by mistake of the man at the wheel, ported instead of starboarding it; the mistake was subsequently discovered, but too late to alter it; the helm was in consequence put to port, which caused the steamer to come into contact with the flat; the *Nuddea* sliding along her port side, the flukes of the steamer's anchor carried away a portion of the thatched roof belonging to the *Gogra* from a little before her beam. The *Nuddea* received a slight dent in the bluff of her port bow above the water line. Estimated value not reported. No damage to the cargo. No loss of life. (The casualty was caused through the negligence of the master of the flat *Gogra* in having anchored the vessel in Garden reach contrary to Port Rule XXIII.)

127. The British iron flat GOGRA [of Calcutta, 400 tons register, no official number or class, age 27 years] was lying empty at Garden reach, Hooghly river. At 9-30 A.M., on the 26th April, the steamer *Nuddea* was proceeding down the river in charge of a pilot, but when abreast of No. 3 Matea-bruj ghât moorings, it was found that the flat was lying moored in the channel off the left bank of the river contrary to Rule XXIII, the result being that there was no room left for vessels to pass, as the *Gogra* had taken up the channel used by large vessels. The pilot of the *Nuddea*, therefore, ordered the helm to be starboarded, but it was by some mistake of the man at the wheel ported. Subsequently the mistake was discovered, when it was too late to reverse it, and the *Nuddea*, thus fouled the *Gogra*, and sliding along the latter's port side, the flukes of the anchor caught the flat's roof boards a little before the beam, and carried a considerable portion of it away. Value of damage to the *Gogra*, ₹1,000. No cargo on board. No loss of life. (The casualty was caused by the master of the flat having moored the *Gogra* contrary to Rule XXIII.)

128. The British iron screw steamer LALEHAM [of Newcastle, 1,299 tons register, official number 80564], from Calcutta to Surinam, with a cargo of rice and dhâl, and 584 emigrants. It appeared that on the 23rd April the steamer

Laleham left Calcutta for Surinam; she had on board rice and dhâl in the lower hold and 584 emigrants between decks. The vessel was in proper trim, and had a full and efficient crew, numbering 38 all told. On leaving Calcutta she proceeded on a S. S. W., magnetic course, and experienced fair weather until about noon on the 27th April, when rain set in. No observation could be taken on that day, but the position at noon was put down on the chart by dead reckoning as 9° 24′ N. latitude, 82° 18′ E. longitude, the course being S. S. W., magnetic. In the afternoon, the master stated, the horizon cleared, and there was nothing in sight, so he kept on the same course, not expecting to sight land. At 8-30 o'clock on that evening a heavy squall and rain set in and lasted till about 10 minutes to 9 P.M.; when it passed off the horizon again became perfectly clear, with no land in sight. The master stated that he altered his course to the southward just as the squall was coming on. Nothing occurred till 10-20 P.M., when he left the bridge, directing the third officer, who was then on watch, that if he saw anything looking like land to put his helm to starboard and inform him at once, and in any case to call him at 12 o'clock. It appeared that at 10 minutes to 11 P.M. the third officer observed a black line ahead from about half a point on the port bow to five or six points on the starboard bow. This he took for another squall coming up; but being doubtful whether it was land or not, he at once went for the master whom he found on the poop. He did not, however, put the helm to starboard, as he had been directed, before he went to call the master. The master on being called, at once saw that the supposed squall was land, so he rushed forward, ordered the engines to be stopped and reversed full speed astern, and himself put the helm to starboard; but before the engines could be reversed the steamer *Laleham* stranded at 11-15 P.M. on the rocks off Elephant point about 22 miles North of Batticaloa (East coast of Ceylon). The deep sea lead was not hove previous to the vessel grounding, because the master said he thought himself too far off the land for it to have been of any use. The course he found when he got on the bridge was South—the course which he had given the third officer at 10 minutes to 9 o'clock. The steamer was got off next morning at 6 o'clock after having been aground seven hours; she came off stern first, clear of the point of land which afterwards was found to have been Elephant point. She then turned round to the northward, towing the boats which had been lowered, and went dead slow. After proceeding thus for a mile, the *Laleham* scraped upon a sunken rock, and on examination of the pumps it was discovered that the fore tank was filling fast. Thereupon the master, in order to secure the safety of the emigrants in the event of the damage being serious, steamed into Vendeloos bay, the lead going all the time, and brought the vessel up in 4½ fathoms of water at 7 or 8 A.M. on the 28th. It was admitted that after the steamer had got off up to the time she scraped, the lead was not going, nor were boats sent ahead to sound the water, as the crew were busy picking up the boats—precautions that might have been taken, considering that rocks were observed sticking up all round the spot where the vessel was originally grounded. The steamer remained in Vendeloos bay, about a mile from where she went ashore, till 7 A.M. on the 29th April; the master sent the first officer to Batticaloa, a signalling station, for the purpose of sending a message to the Agents at Calcutta, also telegraphing to Trincomalie for the assistance of a man-of-war to take off the coolies. Subsequently the master not finding any aid forthcoming, he proceeded with the steamer to Trincomalie under her own steam without repairing the damage. Here the emigrants were all landed and comfortably hutted; the doctor, two compounders, and all the stores and medicines being also landed, she proceeded to Calcutta for repairs on the 4th May. Value of damage to the steamer, about ₹1,56,000; cargo ₹15,000. The master, after the accident, died at Calcutta from an attack of cholera.

[A Marine Court of Inquiry was held at the Port Commissioners' buildings, Calcutta, by the Officiating Chief Presidency Magistrate, on the 27th and 29th May, under sections 7 and 9 of Act V of 1883 (The Indian Merchant Shipping Act), to investigate the circumstances attending the stranding of the S.S. *Laleham* on the coast of Ceylon. The Court recorded that it was observed that on the course marked in the steamer's chart the position laid down as the position at noon on the 27th April showed a run of 35 miles less than on the previous day. The position was arrived at from a calculation from the patent log (Walker's taffrail log). This patent log was alleged to have been found to be about 50 to 52 per cent. in error, and this the master and the first officer attributed to a current or currents which they found off the coast of Ceylon. The master stated that in steering the steamer *Laleham* he was guided by Taylor's sailing directory, a book recommended as an authority by the British Board of Trade. In that book it was pointed out that in April there were strong currents setting to the N.E. A strong current so setting would undoubtedly have affected the correctness of the run as given by the patent log, and on the 27th April it appeared that the run was calculated upon an assumption that the patent log showed 52 per cent. too small. It was questionable whether, under the circumstances, the master in laying down his position on the vessel's chart on that day should have been guided by a calculation arrived at upon so unreliable a basis. No attempt was made to verify the run by reference to the revolutions of the screw. It appeared from the entry in the vessel's log-book for 24th April that the error of the steamer's compass was 3° E. On the 25th the vessel was "swung," and it was then found that there was a westerly deviation in the compass on that course of 8°. This result, however, was not entered in the steamer's log-book, and the Court observed that that log-book was kept in a most irregular manner. It will be seen by a reference to the chart that, taking the course by compass to have been S.S.W., the actual course steered, making allowance for the error of 3° E., would have brought the vessel directly towards the point at which she stranded, supposing the course had never been altered and had not been disturbed by currents. It was, however, found, as already stated on the 25th, that the compass really showed a westerly deviation of 8°, the effect of which would have been—steering as the steamer had been—to keep the vessel out more to the South, unless the course was affected by currents. That there were currents there could have been no doubt. The master of the S. S. *Bruckadale,* who happened to have been off the Basses on the 27th April, showed very clearly that there was a strong current of 3 knots which put his vessel 16¼ miles S.W. by S. off his calculated position in five hours and fifty minutes. The Court remarked that it was clear, therefore, that, on the *Laleham,* if the course and the deviation of the compass spoken to, have been correct, sufficient allowance could not have been made for the strength of the current. The master of the *Laleham* intended to have passed the land 10 or 12 miles off, but the steamer stranded 28 miles from his supposed reckoning to the W.S.W. It appeared in evidence that the third officer, who had been left on watch, and who was on watch at the time the vessel met with the accident, held no certificate, and had only had altogether 3½ years' experience at sea. There was a look-out being kept at the same time, but the look-out man also failed to observe the land until it was too late. It did not appear, however, that the look-out man or the third officer was to blame for not having observed the land sooner. The Court remarked that the master deserved the highest praise for the manner in which he got his vessel off after she stranded. It would have been more prudent, however, if after getting the steamer *Laleham* off he had kept the lead going. Had he done so it was possible the vessel might have avoided the rocks. The Court found that the stranding of the *Laleham* was caused

by errors in judgment on the following points: (1), that the stranding of the steamer was caused by the master having allowed himself too little margin in attempting to pass the island of Ceylon, having regard to the strength of the current encountered by him, and the fact that on the 27th April he had not been able to take any observation; (2), that the master omitted to take every precaution after getting his vessel off the bank, in so far as he did not have the lead going until after he had scraped on the sunken rock lying about a mile off the spot where the steamer went ashore; (3), that the master placed too much reliance in having laid down his position on the 27th on the chart by the patent log without verifying the readings from the patent log by calculations made from the number of revolutions of the screw; (4), that it was imprudent to have trusted the third officer, a man without a certificate and with only three and a half years' experience of the sea, to keep the watch when there was a possibility of sighting land, and in weather rendered thick at times by rain squalls, and that that officer was greatly to blame for having disregarded the direction of the master to starboard the helm at once if he observed anything like land; and (5), that the first officer was greatly to blame for the manner in which he kept the steamer's log, especially in not having entered the result of the swinging of the vessel on the 25th April to ascertain the deviation of the compass. The Court concluded that, having regard to all the circumstances, it did not feel warranted in framing charges against any one on board the steamer *Laleham* in respect of the stranding or subsequent scraping on the rock, but considered the master should be admonished to be more careful in future. The Court accordingly admonished the master.]

129. The British iron screw steamer ALBANO [of Sunderland, 1,522 tons register, official number 87366], from Middlesborough to Calcutta *vid* Sunderland with a general cargo. On the 27th April the steamer, under pilotage charge, was proceeding up the Hooghly river; at 1 P.M. it was nearly high-water, and the steamer took a sheer just above the Puppies parlour, caused by the eddy that is always found there, and ran for the bank. The helm was ordered hard-a-port, but it got jammed, on which the pilot directed the engines to go full speed astern, which order was instantly obeyed; the steamer just then struck the bank in the Hooghly bight at an acute angle, but came off immediately and proceeded up to town. No damage to the steamer or cargo. No loss of life. (The casualty was caused by eddy-tide.)

130. The British iron screw steamer PROFESSOR [of Liverpool, 1,697 tons register, official number 84181], from Calcutta to Liverpool, with a general cargo. On the 28th April the steamer was proceeding down the Hooghly river in charge of a pilot; at 10-30 A.M., when a little below the Crossing mark off Melancholy point, there being strong eddies and the steamer not answering her helm quickly enough, she slightly touched the bank during the last of the ebb-tide, but never stopped. The pilot kept the helm hard-a-port when the steamer went full speed. She afterwards went to sea safely. No damage to the steamer or cargo. No loss of life. (The casualty was caused by eddy-tide.)

131. The British Indian padow RAMPRASAD [of Surat, 54 tons register, official number 3291, age 45 years], from Surat to Bombay with a cargo of cotton seeds, toor, &c. On the 1st May the padow struck on a sand bank off Omar in the Tápti or Surat river (Gulf of Cambay), in consequence of the ignorance of the tindal; at 2 P.M. as the tide receded she heeled over on her side and filled with water. She was afterwards recovered with damage to the amount of ₹150; cargo worth ₹400 was lost and ₹1,000 damaged. No loss of life.

132. The Native craft SAGALPASA [of Cutch Mándvi, 12 tons register, official number 1754], from Broach to Porbandar, with a cargo of cotton seeds. At 8 A.M. on the 1st May the craft, owing to the carelessness of the tindal, stranded on the reefs near the Goapnath lighthouse and about 7 miles distant from the

Talaja bandar, Gulf of Cambay. She was subsequently recovered with very slight damage; cargo worth ₹110 was lost, and the remainder were saved. No loss of life.

133. The Malayan composite steamer WASHI [of Pulo Penang or Prince of Wales' island, 265 tons register, official number 65574], from Pulo Penang to Renoung and Maulmain, with a general cargo. It seemed that on the 1st May the steamer was steering along the Tenasserim coast on a N. ¼ W. course with no sails set; at 12-35 P.M. when off White point in latitude 14° 47′ N., longitude 97° 35′ E., Gulf of Martaban (Burma coast), she met with an accident to her machinery owing to the nut on the top end of the high pressure piston rod having come off, thereby causing the piston, the cylinder cover, the pump rods, &c., to be broken. The weather was fine and clear with light variable winds; it was flood-tide, and the sea was smooth. The master immediately despatched a boat with an officer on board up to Maulmain in order to obtain assistance, and in the meantime the vessel proceeded easy under sail. On the 2nd a steam launch, with a pilot on board, was at once sent out to meet her for the purpose of towing her, when on the following day she was picked up off Kalegauk island. On the 5th she was safely towed into Maulmain Value of damage to the machinery, ₹700. No cargo damaged. No loss of life. (It was reported that the break down of the machinery of the steamer *Washi* was due to an accident to the cylinder cover.)

134. The British iron screw steamer CALCUTTA [of Glasgow, 549 tons register, official number 67984], from Calcutta to Chittagong, with a general cargo. On the 1st May the steamer, in charge of a pilot, was proceeding down the Hooghly river; at 10-25 A.M. whilst proceeding towards the Nynan Lumps the pilot sighted the ship *County of Dumfries* in tow of the steam-tug *Electric* turning round at Nynan, also proceeding down. The pilot in endeavouring to avoid a collision had the helm of the *Calcutta* ported and went under the stern of the *County of Dumfries* as the tug-steamer took up the other side of the channel; immediately after passing the pilot put the helm of the *Calcutta* hard-a-starboad to get the marks on eastward, but before she came round a cast of 2½ fathoms of water was obtained, and the steamer grounded on the Lumps with marks on westward; Fulta point tree bearing N. 18° E., Hooghly point S. by W., and Shipganj point S. W. ½ S., magnetic. The *Calcutta* after being aground for nearly two hours floated off. During the time the steamer was aground every possible means was resorted to by the master to ascertain whether there were any signs of straining, but as none were visible, he directed the pilot to proceed with the vessel to sea. No damage to the steamer or cargo. No loss of life. (The casualty was accidental.)

135. The Native padow LABSAWAI [of Cambay, 25 tons register, official number 2], from Bombay to Cambay, with a cargo of kerosine oil, iron, cloth, &c. At 8 P.M. on the 5th May the tindal anchored the padow at ebb-tide off Gangwa in the Gulf of Cambay, but owing to the carelessness of the tindal she got foul of her anchor, and holes being knocked in her in two places, she rapidly filled with water. The padow was subsequently floated off and repaired. Value of damage to the *Labsawai,* ₹200; cargo worth ₹1,426 was lost, and ₹1,200 damaged. The crew swam ashore and were saved.

136. The British composite schooner ZEPHYR [of Bombay, 82 tons register, official number 58898, belonging to the Bombay Government] was employed on Pilot duties as No. 3 pilot schooner, and was stationed off the Outer lightship, at the entrance to Bombay harbour. On the 11th May the schooner was anchored at her station, 1 mile S. W. of the Outer lightship; at 3 A.M. the battalla *Vijlipersad* during a strong ebb-tide, in endeavouring to cross the schooner's bows, came into collision with the latter's bowsprit, carrying away the bowsprit, 10 feet of the starboard rail, and the galley funnel of the schooner. The harbour master in charge of the *Zephyr* stated that the accident would not have happened had

the tindal luffed instead of keeping away, although continually hailed from the schooner to do so; the *Zephyr's* cable chain was immediately veered away, which prevented any further damage being done. Value of damage to the schooner, ₹330. No loss of life. (The tindal of the battalla having acknowledged his fault, and having paid ₹330 as compensation towards the damage sustained by the schooner, no Court of Inquiry was pressed for.)

137. The British Indian battalla VIJLIPERSAD [of Bulsár, 62 tons register, official number 1699, age 23 years], from Bombay to Bulsár, in ballast. On the 11th May the battalla was proceeding out of Bombay harbour; at 3 A.M., when 1 mile S.W. of the Outer lightship, the wind falling light the tindal kept the battalla away instead of keeping his luff with a strong ebb-tide, and in trying to cross the schooner's bows the *Vijlipersad* fouled the *Zephyr,* her starboard side striking the latter's bowsprit. The starboard side of the battalla was much damaged; value ₹730. No cargo on board. No loss of life. (The collision was caused by the negligence of the tindal of the battalla.)

138. The British Indian muchwa SIBMANI [of Jaytapur, 10 tons register, official number 4905], from Katekhar to Rájápur, with a cargo of salt. On the 13th May the muchwa was anchored at the salt works in the Katekhar creek, Bombay harbour; at 4 A.M. whilst going out of the creek she came in contact with a rock at Agar-Sandooki-Suza and sprung a leak, owing to the carelessness of the tindal. She was subsequently got off and repaired at a slight cost; the cargo worth ₹110 was lost and ₹100 damaged. No loss of life.

139. The British Burman schooner INSEE [of Maulmain, 85 tons register, official number not reported, age about 20 years], from Port Blair to Maulmain, with a cargo of copra. On the 13th May the schooner was lying with both anchors down at Car Nicobar island (Nicobars), when at 10 P.M. she was fouled by the schooner *Oung Chantha,* in consequence of the latter vessel having dragged her anchors during heavy weather. Value of damage to the *Insee,* ₹1,000. No cargo lost. No loss of life.

140. The British Burman schooner OUNG CHANTHA [of Maulmain, 116 tons register, official number not reported], from Port Blair to Maulmain, with a cargo of copra and cocoanuts. On the 13th May the schooner was lying with both anchors down at Car Nicobar island (Nicobars); at 10 P.M. she dragged her anchors during heavy weather and drove close alongside of the *Insee,* with which schooner she came into collision. Value of damage to the *Oung Chantha,* ₹2,750. No cargo lost. No loss of life.

141. The Swedish wooden three-masted schooner HELENA [of Christianopel, 209 tons register, official number not reported], from Calcutta to Port Natal, with a general cargo. The schooner under charge of a pilot, and in tow of the steam-tug *Alexandra,* was proceeding down the Hooghly river on the 14th May; at 5-35 A.M. the vessels were going down Garden reach, and when abreast of the jetty at Messrs. Gladstone Wyllie's yard the steamer went dead slow, at the time the schooner's anchor being aweigh but not in sight, with only her port hawser passed. The pilot stated that, had he waited to pass the starboard hawser before heaving the anchor aweigh, the schooner would undoubtedly have swung ebb, and the consequence would have been that the steamer would have been under the necessity to re-take the schooner in tow again. When the pilot of the *Helena* was about to proceed to haul in her starboard hawser, the master of the tug hailed to let go the port one without volunteering a reason. The pilot on inquiring was told that the engines had suddenly broken down, and that the steam-tug could not tow then, but would do so on the ebb-tide. Had the master of the steamer given the *Helena* information earlier, the pilot would have had more time to adopt measures. As it was, everything was done that was possible to avoid a collision, the helm was put hard-a-port, and the schooner whilst endeavouring to run clear of the tug

(whose engines had stopped altogether), the outrigger, or whisker (iron) of the *Helena's* port jibboom guy fouled the *Alexandra's* starboard quarter boat and was carried away by the boat's afterdavit, but bending the davit and generally damaging the tug's boat. After the accident the master of the schooner proceeded up to town (Calcutta) for the purpose of obtaining another tug steamer if possible to tow her out to sea, and also to arrange about having the damage repaired. On the 15th the master returned without a steamer, and after having been repaired in the India General Steam Navigation Company's workshop on the 14th, she was towed out by the *Alexandra* and left at the pilot station at 9 P.M. the same day. Value of damage to the *Helena*, ₹150. No cargo lost. No loss of life. (The casualty was accidental.)

142. The British iron paddle steamer ALEXANDRA [of Calcutta, 363 tons register, no official number] was employed as a tug steamer in the Hooghly river. It appeared that on the morning of the 14th May, just after starting with the schooner *Helena* in tow down the Hooghly river, it being slack high water, the steamer's engines suddenly stopped when at Garden reach, abreast of the jetty at Messrs. Gladstone Wyllie's yard, at 5-35 A.M. The pilot immediately put the *Helena's* helm hard-a-port and endeavoured to run clear of the tug, but before the schooner could answer her port helm, one of her whiskers (on port cathead) hooked the *Alexandra's* starboard davit guy, breaking the whisker and bending the davit. Both vessels were after the accident repaired in the India General Steam Navigation Company's workshop the same day. The *Alexandra* subsequently, on the following day, safely towed the *Helena* out to sea, when at 9 P.M. she left the schooner at the pilot's station all well. Value of damage to the steamer not reported. No loss of life. (The master of the *Alexandra* reported that the steamer stopped suddenly owing to an accident to the engines, thus causing the schooner to run up alongside the tug.)

143 & 179. The British iron ship HANNIBAL [of Liverpool, 1,204 tons register, official number 45411], from Calcutta to London, with a cargo of seeds. It appeared that the ship sailed from Calcutta on the 30th April, bound for London, with a full cargo of seeds, and on the 2nd May the pilot left her off the Sandheads, the weather being then fine and the wind strong from S. W. The master stated that the vessel was steered on an E. S. E. course under lower maintopsail only, and that nothing of importance occurred till the 15th May, when the vessel encountered heavy weather in latitude 11° 57′ N., longitude 89° 31′ E. (Bay of Bengal); it commenced at S.E. and then veering round by the North to S.W., continued to blow with gradually increasing velocity. On the following day a cyclonic gale was blowing, with high N.E. seas; the sea and wind continued to rise during the day, when at noon, owing to the heavy seas frequently striking the vessel, the rudder head broke off. At 7-40 P.M. the sea struck the ship on the port quarter, and the rudder being carried away, the gudgeon of her stern post broke; all hands were immediately employed in getting up the tow line and rigging the sea anchor. The vessel falling off into the trough of the sea rolled heavily, shipping large quantities of water, severely damaging the bulwarks, and boats, and washing everything portable from the decks. The master said that from that day the crew were constantly employed steering the ship by means of hawsers, spars, and other contrivances, when they eventually succeeded in rigging a jury rudder, and with much difficulty and after serious damage to the vessel, the crew on the 7th June, brought her up, and anchored in Balasore roadstead. From this position, the master communicated with Calcutta for assistance, when the steam-tug *Clive* was despatched round to tow her in. Subsequently the *Hannibal* was being towed up the Hooghly river, and when in Saugor roads, on the 14th June, owing to her not steering well, had to be lashed alongside the tug *Clive*, and there being much swell, and a strong tide, the ship and steamer rolling together, the former sustained

further serious damage to the bulwarks, hull, stanchions, and rails on the starboard side. She arrived at Calcutta on the 15th June, and was anchored at No. 2 Hastings' moorings, when on the 17th she was surveyed for the purpose of ascertaining whether she would require to go into dry dock in consequence of her rudder having carried away during a cyclone in the Bay of Bengal, and her subsequent damage when in collision with the *Clive* whilst being towed to Calcutta by that steamer. The Surveyors reported that, after a careful inspection, they found the rudder stock broken below the poop deck, and the rudder entirely swept away by the sea; the gudgeons on the stern post were broken, and the screw spindle of the steering gear bent and damaged. They were of opinion that, in order to have a new rudder fitted, and the gudgeons repaired, the *Hannibal* must be placed in dry dock. The Surveyors accordingly recommended that the cargo be discharged without delay, and the vessel put into dock; tenders for docking and supplying a new rudder should be called for, and the work of making a new one should be placed in competent hands who had facilities for forging heavy iron work. On the following day, the Surveyors, after a careful examination in detail of the ship, reported that the rudder had entirely gone, the only part remaining being a piece of the stock about 4 feet long with the cross-head of the steering gear attached. The river water being muddy, the Surveyors were unable to see the gudgeons, but the divers reported that the two upper gudgeons were broken and the lower ones twisted and damaged. The Surveyors advised that, when the vessel went into dry dock, a mould should be made for a new rudder stock and frame, and a new frame forged with pintles of good approved iron and well fitted into new gudgeons to be made of the best iron and fitted to the stern post. The old cross-head to be taken off the broken part of the old rudder, and if found sound, should be fitted on the new rudder head. The screw spindle of the steering gear bent and damaged, the screw to be straightened and repaired, if possible, and the steering gear put in good working order; the cover over the steering gear slightly damaged, to be repaired and refitted; the wheel grating and the grating stanchions broken and destroyed, to be replaced with new teak-wood, turned and finished as before; the stern pump cut at the poop deck, to be repaired and put in working order; the binnacle and the binnacle-stand damaged and the magnets shifted, to be repaired and the magnets properly placed; the iron rails and stanchions round the stern broken and bent, and the stanchion sockets torn from their fastenings in the covering board, the rails and stanchions to be repaired, straightened, fitted, and fastened as before; the centre stanchions of the steering gear broken at the covering board, to be repaired and refastened as before with new bolts; the covering board round the stern chafed and damaged by the chains and spars used for temporary steering gear, to be taken out to the original scarphs, and replaced by a new length of teak-wood covering board; the after ends of 22 poop deck planks chafed and worn down by the temporary steering gear, to be taken out to the original butts and replaced with new deck planks and caulked; the poop deck planks on the starboard side near the mizenmast dented and damaged when getting spars and blocks alongside for temporary steering gear, the lining of the cabin to be removed in order to get at the fastenings of those planks and put back as before, and any parts that might be broken whilst taken down, to be renewed; the leading chocks for main braces on each side of the poop chafed and split by the spars, &c., for temporary steering gear, to be taken out and replaced with new chocks and sheaves; the brass rails and stanchions on front of poop were shaken loose and broken, and the sockets torn from their fastenings on the covering board, to be taken down, overhauled and repaired, and the sockets refastened to the new covering board; the covering board over the deck plank ends on front of poop chafed, and damaged by dragging spars and chains over it for the temporary

steering gear, to be taken off and replaced with new teak-wood, fastened as before; the panels and mouldings of the front of poop badly shaken and started, and the doors and hinges broken, to be removed, and the panels that are fit to go back again, to be rejointed and refastened, and new panels and doors made as required; the mouldings and planking of the cabin bulkheads inside, in the passage, were washed off, and the bulkheads, berths and fittings in the state-room started and shaken, the whole of the state-room bulkheads and fittings near the front of poop, to be overhauled, refitted, and renailed as required, and new mouldings worked on where washed off; the fastenings of the cant piece at front of poop seemed to have started, to be examined when the panelling was removed, and new fastenings put in if required, the main deck planks on each side at the main rigging chafed, dented, and damaged by spars and chains being drawn over them, to be dubbed down, and if the dents were too deep, to be taken out and renewed, then four planks on each side to be renewed; the mouldings and doors of the deck-house, between the fore and main hatches, washed off and damaged, to be repaired as required; the front of forecastle badly shaken and damaged and six doors broken, the doors to be renewed and the panels taken down, rejointed, repaired, and refastened; the shelves and lockers in the forecastle broken and lost, to be renewed and renailed where required; the two after boat's davits slightly bent, to be straightened; the after stanchions of the after boatskids washed away, to be fitted with new quarter stanchions; the port forward boat badly damaged by the sea coming on board during the cyclone was condemned and sold for the benefit of the concerned, and a new boat supplied; the stern carving on both sides and the lower moulding cut and chafed by the jury steering gear, to be repaired and repainted as before; the port bill board washed off, a new bill board to be supplied and fitted; the forward bulwark port with hinges washed away, to be fitted with a new bulwark port with hinges and ring bolts; a stanchion bolt below the fore rigging behind a chain plate was started, to be examined and renewed if required, the chain plate to be removed to renew the bolt; the two after bulwark ports with hinges washed away and the bulwarks started and damaged by the cyclone in the way of the main rigging, the bulwarks to be renewed from the front of poop to the forward part of the main rigging and two new bulwark ports with hinges and ring bolts fitted; one 62 feet pitch pine spar used for jury rudder cut, and another one of the same length used for main piece and badly chafed and destroyed with bolts, &c., rendered useless; a spare topgallant yard 40 feet, used for cross piece, carried away, to be replaced with new ones; one 13 fathoms towing hawser, used for steering, badly chafed and subsequently cut for fenders between the ship and tug steamer, to be replaced by a new hawser; one 9 fathoms and one 4″ Manila warps used for steering gear badly chafed and broken in three pieces, to be replaced by new ropes; 7 coils of $3\frac{1}{2}$″ to 2″ Manila ropes cut and used for lashings and falls, to be replaced with new ropes; mizentopmast sheet (chain) broken and rendered unfit for use as a topsail sheet, to be supplied with a new topsail sheet; the mizentopsail tie used for steering and rendered useless for a topsail tie, to be supplied with a new topsail tie; two jin blocks used for steering gear, pins and sheaves worn slack, to be repaired, and new sheaves supplied; the maintopgallant tie and runner used for steering gear rendered unfit for use, to be replaced with new; the maintopsail halyards used over the side for the steering gear damaged, to be examined and renewed if found unfit for use; the topgallant halyards used for steering gear damaged, to be examined and renewed if found unfit for use; a leading block of the main topsail braces split and broken, to be replaced with a new block; 8 double and single hiff tackle blocks used for tackles for steering gear more or less damaged, some broken to pieces, to be overhauled, repaired, and 3 new blocks supplied; the fore, the main, and the mizentopgallant halyard blocks used for steering tackles

more or less damaged, to be overhauled and repaired; a wire 4" fish pendant cut and used for steering gear and rendered useless, to be replaced with a new pendant; the following pieces of the head knees on the starboard side started above water whilst being towed, to be refastened; 5 chain plates off the fore rigging on the starboard side broken and the whole of the chain plates of the fore channels badly bent and damaged, to be taken off and renewed; the channel board crushed and destroyed, to be taken off and replaced with new channel board; the iron channel board mouldings broken and part of it lost, to be renewed; lead scupper under the fore chain plates broken, to be renewed; two scuttle ports under the fore channels broken and damaged, to be taken out, repaired, or renewed as required; three stanchion bolts in the way of channels started and probably broken, to be taken out and renewed with larger sized bolts; the iron cleats for the fore and main sheets broken, to be taken off, repaired and rivetted on the side as before; the rail mouldings on the starboard side of the poop broken off as far as the turn of the stern, to be renewed; the side lining in the cabins to be taken down in order to get at the fastenings of the mouldings and to be replaced when the new mouldings were fastened; several rivets started in the poop plating, to be taken out and replaced with new rivets; iron eye-bolts for the accommodation ladder broken, to be taken out and replaced with new iron bolts; iron cleats and eye-bolts for fore braces bent and damaged, to be renewed; all the main and the topgallant bulwarks on the starboard side badly split and broken from the forecastle to the poop and the after mooring chock split and torn off, partly caused whilst towing, and partly by the cyclone, to be supplied with entirely new bulwarks and fitted on to the starboard side from poop to forecastle and the old panelling and mouldings to be utilized as far as they will go, and a new mooring chock to be fitted; 2 scuttle ports in midships started and damaged, to be taken out and repaired or renewed as might be found necessary; 3 rivets and 2 stanchion bolts started and probably broken, to be taken out and replaced with new bolts and rivets; the channel board of the main rigging on the starboard side broken and chafed, and the chain plates badly bent and broken, and the iron mouldings knocked off and lost, the chain plates to be all taken off and a new channel board and iron mouldings fitted and the chain plates repaired or renewed as might be found necessary; a side scuttle under the main channel damaged, to be taken out and repaired; the lead scupper under the main channel damaged outside, to be renewed; 3 stanchion bolts started abaft the rigging, to be taken out and replaced with new bolts, a size larger than the old ones; the main and the topgallant rails on the starboard side badly started, split and shaken, to be removed and replaced with new teak-wood topgallant and main rails from the poop to the break of the forecastle; 3 bulwark stanchions broken, to be examined when the bulwark planks were removed; the figure-head badly chafed, to be dressed up as it stood without taking off; the iron rails and the stanchions on the starboard side of the forecastle head bent and broken, and the sockets torn up from their fastenings, to be taken down, repaired, straightened and refastened; the covering board above the bill board split and the iron chafing plates broken and started, to be repaired, refitted and refastened; the fastenings of the cathead through the covering board started and loose, the cathead to be removed in order to have the covering board underneath it renewed, refitted and refastened; the forward quick work started away from the covering board and split, the covering board underneath split at the bolts and broken, the covering board being much damaged by the sockets of the stanchions being broken up and split under the quick work forward and damaged under the cathead, to be entirely renewed from the fore part of the forecastle to the knight heads. The quick work replaced with new teak-wood and the towing bollards refastened. The *Hannibal* was also surveyed on the 26th June, whilst lying in the Commercial

Dry dock at Howrah, in order to examine the stern post, rudder gudgeons, and the bottom generally of that vessel. The Surveyors reported that they found the two upper gudgeons on the stern post broken, and the two lower gudgeons slightly twisted and torn thin, also that the socket on the keel was broken and destroyed; the paint on the bottom aft was chafed and damaged by the chains, &c., used for jury steering gear. The Surveyors recommended that the old gudgeons on the stern post be cut off and new gudgeons of the best refined of Swedish iron $1\frac{1}{8}$" thick made to clamp on to the stern post and rivetted thereto with four rivets in each after the new rudder was shipped. The broken part of the keel socket should be cut off and a level surface made on the keel for the lower part of the rudder to rest on, and the heel of the rudder held to the stern post with a clamp, the same as the new gudgeons, and rivetted to the keel. The paint on the stern post and on the keel for a distance of about 20 feet forward of the stern post, to be scaled off to the bare iron for examination of the rivets of the keel and stern post. The bottom to be cleaned and painted with two coats of good paint and a coat of tallow, and the paint on the top sides being much chafed and rubbed off on the starboard side, to be chiselled off to the bare iron and repainted as before. The sparring battens between decks on the starboard side, to be removed from the foremast to the after hatchway to enable the Surveyors to examine the rivetting of the plates, and to ascertain whether that side of the *Hannibal* had received any damage by the tug *Clive* having unavoidably knocked against her when towing alongside. The Surveyors advised that the upper (main) deck, the poop, and the forecastle decks be caulked throughout. On the 23rd October, the Surveyors proceeded to the Port Commissioners' ware-house at No. 2 Jetty, for the purpose of examining a quantity of damaged wheat and seeds rejected from the cargo of the *Hannibal*. They reported that they found 128 bags of wheat, linseed, and rapeseed damaged by seawater, and advised that they be sold by public auction for the benefit of the concerned, at as early a date as possible. Besides the above, about 8 bags loose grain mixed with sweepings, 68 bags torn and damaged were rejected, and the contents to be put into fresh bags. The 68 double gunny bags and the sweepings should be sold by auction, together with the damaged wheat and seeds. They estimated that, for complete repairs, which would probably occupy about two months' time, amounted to ₹35,000. Value of damage to the cargo, ₹25,000. No loss of life.

144. The British Indian padow RUPAREL [of Surat, 7 tons register, official number 3805], from Surat to Bhávnagar, with a cargo of firewood. The tindal stated that on the 16th May, when off the Kalai creek, near Bhagvádándi (Gulf of Cambay), one of the padow's planks started owing to the cargo being improperly stowed, and she consequently sprung a leak, when at 10 A.M. some of the firewood had to be thrown overboard in order to save her. She was temporarily repaired, and thus got safely to her destination. Value of damage to the padow and cargo, ₹100. No loss of life.

145. The British iron screw steamer PURULIA [of Glasgow, 993 tons register, official number 78644], from Rangoon to Calcutta, with 365 passengers and a general cargo. At about 8 A.M. on the 16th May the steamer left Rangoon for Calcutta, and soon after went out to sea; she experienced squally weather from the S.S.E., and it was threatening worse to the S.E. At noon of the same day, when in the Gulf of Martaban, the wind with sea increased very fast, and the master's belief was there was every indication that the vessel was within the influence of a cyclone. At 11-30 P.M., the steamer was struck by a tremendous sea which flooded the decks and washed overboard a native deck passenger. Owing to the very heavy sea on, no effort was made to lower a boat to attempt the man's rescue, as the boat would have been swamped instantly. The master at this time, seeing that the cyclone was going N.W., steered South

of its course; at midnight there was a strong gale from S.S.E., accompanied by a rough sea; at 4 A.M. of the 17th there were still heavy squalls accompanied with rain, and a confused sea. At noon the weather moderated, the wind being from the S.W., when the steamer bore up for Alguada, and after leaving the lighthouse she experienced all the way the ordinary S.W. monsoon weather. The *Purulia* was very slightly damaged, and being lightly laden stood out the cyclone very bravely. No damage to the cargo. One life lost.

146. The British Indian wooden ship VALIANT [of Calcutta, 1,625 tons register, official number 3 of 1882], from Calcutta to New York, with a cargo of hides, pepper and salt. The master stated that on the 17th May, when in latitude 12° 05′ N., longitude 88° 45′ E. (Bay of Bengal), the vessel encountered a heavy cyclone during which the foresail and several other sails were carried away. The following day she began to leak, making 5 inches of water per hour at first, which gradually increased to 9 inches per hour, when the master decided to bear up for Mauritius for survey and repairs, and which port she reached on the 12th June. In accordance with the recommendations of the Surveyors the cargo was discharged, and on the 15th July the ship was placed in dry dock for inspection of her bottom. The Surveyors reported that they found the vessel was leaking in several places, and the caulking of the butts and seams was generally very slack. On the 6th August the *Valiant* had been re-caulked and re-metalled over felt and was afloat again, and had re-shipped the sound portion of her cargo. On the 2nd September the vessel was swung, and on the following day she sailed for New York. Value of damage to the ship, ₹83,656; cargo, ₹5,672. A quantity of about 607 bags of linseed, all more or less damaged by sea-water, were sold at Mauritius by auction, but its amount was not reported. No loss of life.

147. The British iron ship FIJI [of Liverpool, 1,357 tons register, official number 74748], from Rangoon to Akyab, in sand ballast. The ship, it appeared, was lying at Akyab harbour (Burma coast), waiting to load a cargo of rice for the Channel. A violent cyclone raged at Akyab on the 17th May, when the barometer fell to 29·186, from 10 A.M. there was a steady breeze from the N.E., and it was at its worst from 8 P.M. to 10 P.M. The master stated that at 7-15 P.M. on that day the ship commenced dragging, and within a quarter of an hour she grounded on the beach between Fisherman's creek and Cheroonghea khal with her keel, and as the wind veered to the southward her head was driven to the westward, and she finally laid parallel with the bank of the river on a bed of mud and sand. A cargo boat with rice in course of shipment for the *Fiji* was sunk alongside during the cyclone. The *Fiji* had nothing but ballast on board, and had not begun to load when she was driven on shore. At low-water she was entirely dry, and there was from 1 to 4 feet of water all round her, and at high-water from 5 to 8 feet. The master after the cyclone sent down all the vessel's upper yards and began discharging the ballast. An unsuccessful attempt to tow her off the beach was made on the 10th June by the British India Steam Navigation Company's steamer *Calcutta*. The master after discharging the whole of the ballast she eventually got off without assistance on the 21st June, and was re-moored in deep water in the harbour. The Surveyors proceeded on board the ship *Fiji* on the morning of the 21st June, in order to survey her then present condition, she having dragged her anchors and been driven up on the harbour beach during the cyclone. They reported that after a most careful examination of all the visible parts of the ship, both inside and outside, they found no sign or indication of her hull having suffered in any way by the grounding. She was quite tight, and the only apparent damage she had sustained was that five of the iron whelps on the body of the windlass were cracked through, evidently the result of the severe biting strain on the cables either during the cyclone or afterwards in heaving the vessel off the beach, and that one of the ship's boats was lost in the storm. The Surveyors were of opinion that the *Fiji* was in

all respects seaworthy, and fit to carry a dry and perishable cargo to any part of the world. Value of damage to the *Fiji*, about ₹15,000. Value of damage to the cargo, intended for the *Fiji*, but not received on board, and sunk in the cargo boat, was ₹625. No loss of life.

148. The British Indian schooner RATTLER [of Chittagong, 56 tons register, official number not known], from Akyab to Chittagong, in ballast. The schooner was lying at anchor in Kyouk Phyou harbour (Burma coast) on the 17th May, ready to proceed to Chittagong to load a cargo of rice; at 10 P.M. she experienced the tail end of a violent cyclone when the schooner dragged her anchors and drifted northwards, the nakhoda after clearing the pier tried to bring her up, but she ran aground on the sandy point opposite the Kyouk Phyou Post Office. She was subsequently recovered, having sustained damage to the amount of ₹140. No cargo on board. No loss of life.

149. The British iron ship LOCH LINNHE [of Glasgow, 1,382 tons register, official number 76732], from Akyab to the Channel, with a cargo of rice. It appeared that the ship was anchored in Akyab harbour (Burma coast) in order to load a cargo of rice for the Channel, and up to the 17th May she had loaded only a part of her cargo, *viz.*, 175 tons. On that day the master stated that a severe cyclone overwhelmed Akyab, which raged for 12 hours, from 2 P.M. on the afternoon of the 17th to 2 A.M. on the morning of the 18th; the wind during the day was for the most part from the North and N.E., and blew in fresh and fitful gusts as the evening closed; at 9 P.M. the master felt the vessel take the ground between Fisherman's creek and Cheroonghea khal, and she kept driving up the bank easily without thumping until 10-30 P.M., at which time the master sounded the pumps at intervals and found she was not making any water. On the following morning the master himself examined the vessel, and found that she had not sustained any damage, and was lying quietly in a bed of soft mud. Two cargo boats with rice in course of shipment for the *Loch Linnhe* were sunk alongside. The ship subsequently got off on the morning flood-tide on the 23rd May without assistance. The Surveyors proceeded on board the *Loch Linnhe* on the afternoon of the 23rd May for the purpose of surveying the actual condition of the ship, which had dragged her anchors and been driven on the harbour beach during the cyclone. The Surveyors reported that the vessel was afloat and riding at her anchors in the harbour, and after a careful examination of the ship's hull, they found no indication of her having strained or otherwise damaged herself in any way by the grounding. The *Loch Linnhe* made no water, and the Surveyors had no hesitation in saying that they considered her in all respects seaworthy and capable of prosecuting her voyage to Europe with a full and complete cargo; they therefore advised that she proceed with her loading at once. The master of the *Loch Linnhe* got his vessel off himself, and paid all expenses that had been incurred in connexion with it; it was estimated to have been approximately at ₹500. Value of damage to the cargo, which was intended for the *Loch Linnhe,* but not received on board, sunk in the two cargo boats, was about ₹700. No loss of life.

150. The British iron screw steamer MADRAS [of Glasgow, 462 tons register, official number 48928], from Rangoon to Calcutta, with 711 passengers and a cargo of cutch and rice in bags. The steamer left Rangoon on the 16th May at about 10 A.M., bound for Calcutta; she had on board a cargo of rice and carried 711 deck passengers. The master stated that on leaving Rangoon the wind was a strong breeze from the S.E., and the weather was cloudy; it was the last quarter of the flood-tide, and she had safely proceeded down the river; the steamer had barely got outside when the weather changed. She was steering from S.W. to S. by W., and had reached from 75 to 80 miles on her voyage, when she experienced in the Gulf of Martaban (Burma coast) a heavy cyclone from S.E. to S.W., with much

rain; the sea was terrific, and was running to N.E. At 10-30 P.M. on that day the jolly-boat was carried away, and shortly afterwards the master made the Krishna shoal blue light bearing W.S.W. The steamer in general, at this time, was put in order for the bad weather; she was heading off the Krishna shoal well head to sea. On the next day at 3 A.M. the Krishna shoal light was sighted, bearing North; one cutter and one life-boat was lost, and between 4 A.M. and 6 A.M. the steamer sprung a leak in her after-hold. The seas washed her fore and aft, and it was with the utmost difficulty and danger that the crowd of human beings that peopled her decks could be got below, but it was eventually managed, and the hatches were fastened down. The pumps were kept constantly going, when it was found that in the course of three hours there were 5½ feet of water in her hold. The steamer got out of the cyclone and the master found that it was then much easier to work the vessel, and as soon as it was possible he put back, reaching Rangoon, with 6 feet of water in her, on the morning of the 18th. All the time it was feared that some of the passengers had been washed overboard, but it was subsequently ascertained that all the passengers were safe. The steamer ultimately transhipped her cargo to the S.S. *Kilwa*. Value of damage to the *Madras*, about ₹1,400; cargo, ₹3,600. No loss of life.

151. The British wooden barque ZENOBIA [of London, 1,099 tons register, official number 30633, age 33 years], from Vizagapatam to the United Kingdom, with a cargo of jaggery and redwood. It appeared that on the 17th May the *Zenobia* was partly laden with 330 tons of her cargo; at 7-30 A.M. on that day, whilst she was shifting her berth into the Outer roadstead at Vizagapatam (Madras coast), in order to discharge the ballast she had on board, the wind suddenly fell so light that the crew lost control of the vessel, the result being that she came into collision with the ship *Ellerslie*, which vessel was lying in the Inner roadstead of Vizagapatam loading a cargo of jaggery and redwood for London. The *Zenobia* fell off across the bow of the *Ellerslie*, and was set down athwart her hawse by the current; thus both vessels were considerably damaged. The collision was said to have been unavoidable, inasmuch as the *Zenobia* had got so close to the *Ellerslie* that the former vessel could not let go her anchor and thus avoid the casualty. The weather at the time of the accident was bright and clear, with a baffling light breeze from South to S.W. Every endeavour seemed to have been made to avoid the collision; the yards of the *Zenobia* having been braced aback, and the *Ellerslie* having paid out more chain, but to no avail. The *Zenobia* had about 30 feet of her port main rail amidships carried away, 20 feet of the inner part of the upper covering board underneath port main rail amidships started inward slightly, two timber head stanchions sprung, four deck planks abreast main hatch pitted and chafed, the streak batten on outer edge of main covering board amidships chafed off, and the rigging slightly damaged; estimated value, about £71. No loss of cargo. The master of the *Zenobia* died of apoplexy on the 22nd May.

152. The British wooden ship ELLERSLIE [of Liverpool, 1,346 tons register, official number 65970], from Vizagapatam to London, *viâ* Bimlipatam, with a cargo of jaggery and redwood. On the 17th May the *Ellerslie* had been partly laden with 300 tons of her cargo, and was lying in the Inner roadstead of Vizagapatam (Madras coast). At about 7 A.M. on that day the barque *Zenobia* got underweigh to proceed out into the Outer roadstead for the purpose of discharging ballast in the ballast ground, when the wind suddenly fell light and she drifted down athwart the ship *Ellerslie's* bows. The *Ellerslie* had 36 feet of her main rail carried away; 10 feet of her covering board started; about 9 shifts of her bow planking on the starboard side much chafed over an area of about 8 square feet, caused by the anchor coming between the two vessels; the jibboom, the

starboard cathead and the flying jib guy were carried away; estimated value £189. The *Ellerslie* was surveyed on the 21st May for the purpose of ascertaining the damage she had sustained by being fouled by the barque *Zenobia*. The Surveyors reported that they were of opinion that the damage to the ship was not of so very serious a nature as to render her unseaworthy, and they consequently recommended the completion of her loading for the United Kingdom. They advised the caulking of the vessel's bows and other temporary repairs before proceeding on her voyage, and that the permanent repairs should be effected on arrival at her destination. No loss of cargo. No loss of life.

153. The German wooden barque ROSSINI [of Bremen, 1,004 tons register, no official number], from Akyab to Falmouth, with a cargo of rice. It appeared that she was lying in the Akyab harbour (Burma coast), loading a cargo of rice. A terrific cyclone swept over Akyab on the 17th May. On that day the morning dawned hazily, and at 9 o'clock the wind was moderate from N.E., with light rain, but the weather being rather hazy; the wind afterwards increased a little towards the North, and by noon it was blowing fresh, veering to the eastward. The barometer, being then 29·45, was falling, after which the wind suddenly increased, and the barometer continued falling, and at 8-30 P.M. it went down to 29·15. At 3 o'clock that afternoon the wind began rising, and the barque was riding with both anchors down till 9 P.M.; at dusk the wind was from S.E., and had freshened. At 9 P.M. the wind still continuing to rise with great force, and accompanied with heavy rain, the barque dragged her moorings and went ashore between Fisherman's creek and Cheroonghea khal. The *Rossini* was only aground for a few hours, and was got off without any difficulty by her crew. On the 20th May the barque was examined, when it was reported that, as far as the Surveyors could then ascertain, after a very careful survey of all the visible parts of the hull outside and inside, as she was lying afloat in the Akyab harbour, drawing 17½ feet forward and 15 feet aft, the vessel did not appear to have suffered any damage by the partial grounding. Before, however, the Surveyors would give a final opinion and report as to the seaworthiness of the vessel, they considered it necessary that an examination of the bottom under water should be made by a diver, and recommended that the services of a professional diver be at once secured for that purpose, getting his report on the condition of the bottom and to satisfy themselves that the barque was tight; the Surveyors therefore sealed up the pumps after seeing her pumped out dry. On the 22nd, one European diver examined the hull of the *Rossini* from stern to stern on the starboard, whilst another European diver examined the port side. They reported that they found the starboard side of the barque in thorough good order. On examining the port side they found about 6 inches of copper gone off from the underpart of the false keel, amidships, also that the copper was off the underpart of the false keel, beginning about 6 inches from the sternpost and extending for 6 or 7 feet forward, but considered that it was no detriment, as the copper was not off the main keel, and that no part of the false keel was knocked off. On the 23rd May the *Rossini* was finally surveyed. The Surveyors reported that when they unsealed the pumps they observed that she had only made 4 inches of water in 80 hours. The report made by each of the two European divers who examined the bottom under water was considered satisfactory; the small patches of copper that had been stripped off the false keel would, in their opinion, in no wise affect the safety of the barque on her homeward voyage. The Surveyors, therefore, were of opinion that the *Rossini* was seaworthy and fit to carry a cargo of rice to Europe, and advised that her loading be proceeded with at once. Value of damage to the barque, ₹500. No damage to the cargo. No loss of life.

154. The British iron screw steamer RAJPOOTANA [of Glasgow, 1,312 tons register, official number 71688], from Calcutta to Bombay, *vid* Burman and

Indian coast ports, with a general cargo, was overtaken by a cyclone in the Bay of Bengal from noon of the 16th to noon of the 17th when in latitude 19° 23′ N., longitude 89° 47′ E. The steamer left her moorings off the Bank of Bengal in the Hooghly river at 9 A.M. on the 15th May, and passed the Outer floating lightship at 8-15 P.M. the same day, when the master set the course for the Alguada reef lighthouse. The master said that the sea was then moderately smooth, and there were light southerly airs with fine weather till 4 A.M. on the 16th. The wind afterwards hauled ahead and a long S.E. swell set in, which increased to a fresh breeze at 8 A.M. with considerable head sea, causing the steamer to ship much water on deck; the weather being moderately clear. At noon the vessel by meridian altitude of the sun and chronometer was in latitude 19° 23′ N., longitude 89° 47′ E., and the Alguada reef lighthouse bore S. 48° 30′ E., distant about 335 miles. At 2 P.M. the wind and sea increasing, the barometer falling, and the wind hauling to E.S.E. and East; at 4 P.M. there being a heavy head sea and falling glass, the master decided to run South; at 5-30 P.M. the vessel was kept away with fore and aft sails set in order to steady her, the engines were working at full speed, and the sky was cloudy with a bank in the S.E. At 8 P.M. the vessel, with all sails set, was hauled up, heading to the eastward, for the purpose of observing which way the wind was bearing and thus decide on a course of action. The glass was still falling, the sea was very heavy, and the wind gusty, with rain; at 10-55 P.M. the master, on finding the wind veering into the N.E. quarter with violent squalls and rain, assumed that the steamer was in the track of an advancing cyclone of slow movement and large diameter; he therefore resolved on running at full speed to the W.S.W. with a view to escape the centre, which the master estimated to have been 80 miles to the S.E. of the position the vessel was then in. After considerable difficulty and danger the steamer was got before the wind; at midnight the wind was N.N.E. in furious squalls and rain, clearly demonstrating the correctness of the vessel's movement, though the glass falling showed that the centre was approaching rapidly. At 1-30 A.M. on the 17th the wind was North, with a mountainous easterly or beam sea; the engines were working well though racing heavily, the speed being over 12 knots an hour; the very heavy seas flooded the decks and lifted the mail boat out of the tackles, also bending the davit down to the rail. At 2 A.M. the wind veering to N.W. blowing a terrific cyclone, the master kept the steamer away to S.S.W.; at 4 A.M. the barometer was at its lowest, the wind hauling westerly in furious squalls and blinding rain, the vessel was kept away South, and at 6 A.M. to S.S.E. The master then determined on trying the effect of oil, expending some 10 gallons with great success, being put over from forward; by the time it got aft the seas ceased to break and settled into crestless waves, though the cyclone waves running at right angles to the high wind and following sea caused the vessel to labour heavily, besides the danger of broaching to. At 7 A.M. the master kept away S.E., the wind from N.W. was at this time of hurricane strength with blinding rain, which indicated the result of the passing meteor to the vessel's N.E. quarter; at 9 A.M. the wind had slightly decreased, but there was a tremendous sea running, the master set the topsail to avoid being pooped. At 9-30 A.M. sighted the steamer *Pemba* to the N.E., and the *Rajpootana* hove-to with head to the S.W.; the master signalled and found that she was all right, boats all safe, and as the *Pemba* required no assistance, the *Rajpootana* passed on, she being then in the S.W. quadrant of the cyclone, which was on its way to the northward. At noon of the 17th the wind settled down to a steady S.W. gale; the master kept the vessel on her course under all sail and steam. On the 18th the master observed that the steamer's position was 12 miles South of the Alguada reef lighthouse, when it was found that she had been set 20 miles to the westward of her position; at 9 P.M. the ordinary monsoon wind

and weather was met with; at 12-30 A.M. on the 19th May passing the Krishna shoal lighthouse it was squally with rain, the weather being very hazy; at 2 A.M. sighted the China Ba-keer lighthouse, and at 5 A.M., after taking a pilot on board, proceeded up the Rangoon river. Little or no damage to the steamer or cargo. No loss of life.

155. The British Indian iron steamer ARROW [of Bombay, 130 tons register, official number 63528], from Bhávnagar to Bombay, with a cargo of cotton. The steamer was proceeding down the Gulf of Cambay on the 18th May on her way to Bombay. The weather at the time was stormy with a westerly breeze; it was ebb-tide, and the sea was heavy. At 10 P.M. on that day, when off Bulsár (Bombay coast), the chief engineer reported that the steamer was making water very rapidly, whereupon the master kept all hands engaged in bailing out water. The crew were continually working at the pumps, but notwithstanding their efforts the water still gained upon them. The master, for the purpose of saving life, immediately ran her close in shore towards Domus, near Surat. The water having got into the engine-room extinguished the fire, when the vessel was anchored at 3-30 A.M. Pumping was vigorously resumed by the aid of the donkey engine pump and with buckets, but all to no effect; the master then jettisoned about 36 bales of cotton in order to lighten the steamer, when it was discovered that the leakage was caused by the breaking of a leaden pipe which was connected to the water-closet. This was immediately repaired temporarily on board. The steamer was aground for seven hours on the sands off Domus, and at high-water she was floated off. She subsequently arrived at Bombay on the 23rd May. Value of damage to the steamer, ₹476; cargo, ₹1,473. No loss of life. (The casualty was unavoidable.)

156. The British iron screw steamer JAPAN [of London, 1,865 tons register, official number 67329], from Calcutta to Hong-Kong, *viâ* the Straits, with opium and a general cargo. At 11 A.M. on the 20th May, when about 16 miles S.W.½ W. of Narcondam island (Andamans), the steamer met with an accident to her machinery owing to the thrust shaft having broken in two. The master had the broken shaft sufficiently repaired at sea with patent clips to allow of the steamer reaching Penang, when further repairs having been executed at that port under the supervision of Lloyd's Surveyor and the Colonial Engineer Surveyor, she obtained leave to proceed on her voyage, and arrived at Hong-Kong on the 6th June, where the thrust shaft was changed and all permanent repairs completed. No damage to the steamer or cargo. Value of damage to the machinery, $1,000. No loss of life. (The cause of this casualty was not reported.)

157. The British composite brig COLEROON [of Calcutta, 346 tons register, no official number, belonging to the Indian Government] was employed on Pilot duties at the Sandheads. The commander of the brig stated that at about 6-30 A.M. on the 20th May he was on deck, and first sighted the inward bound ship *Star of Italy* when 7 or 8 miles off on the weather bow, the pilot brig being on the starboard tack, and 5 miles to the E. S. E. of the Eastern Channel lightship, Sandheads. The ship was proceeding towards the brig from the S. W. It was fine weather, and there was very little tide, it being about slack water; the wind was a moderate wind from the S.S.W., and was a good commanding breeze. The brig after sighting the *Star of Italy* went round and hove-to on the port tack; the ship was then about a couple of points on the brig's weather bow, and was heading towards her. At 7-45 A.M. the *Star of Italy* was 3 miles off; the commander of the *Coleroon* after heaving-to made preparations for putting the boat out for a pilot to board the ship and gave the signal for the *Star of Italy* to heave-to on the port tack. The commander gave the signal to heave-to on the port tack

to prevent the ship heaving-to on the opposite tack, when the vessel communicating and the brig to gradually separate and so give the pilot boat an unnecessary pull, besides occasion a loss of time. As the ship approached she appeared to be making for the brig's stern, thus showing that she intended to go under her stern and heave-to on the same tack as the brig. The commander of the brig said that when the ship got to a little more than half a mile he observed her to round to a little, and was heading direct for the brig's weather quarter. The *Star of Italy* was proceeding at the rate of 8 knots an hour, and had all sail set. The commander of the brig deposed that whilst a quarter of a mile distant, the ship appeared to be heading for the brig's weather gangway. There was nothing done on board the ship, neither were the yards trimmed for wearing, and that had the vessel ported her helm at a quarter of a mile off, she would have gone under the brig's stern, as the *Coleroon* was gradually gathering headway. At this time the commander of the brig anticipated a possible collision. Whilst the ship *Star of Italy* was coming near the pilot boat was on the brig, hanging from the main yard on the lee side for the purpose of being lowered away to serve the ship with a pilot. The *Star of Italy* proceeded on in this direction till she was two or three ships' length off, when the commander filled the brig's main yard and put the helm up; the brig being dead in the water, it took some time for her to gather way and answer the helm. The ship *Star of Italy* had her helm hard down, for she went round very quickly and came parallel and then came into collision with the *Coleroon,* striking her on the weather bow with the bluff of her lee bow. The ship's helm had evidently been put down immediately before the accident, or else she would undoubtedly have cut the brig through. The *Coleroon's* helm was hard up when she was struck, and thus the force of the blow was consequently lessened thereby. After heavily thumping the brig for a while, the two vessels separated from each other. The first thing the vessel struck was the brig's port gun abaft the main rigging, which had been caught by some portion of the *Star of Italy's* hull or bulwarks. The ship carried away the brig's jibboom, from a little way outside the bowsprit cap, the foretopgallantmast, and a considerable portion of the head gear; the foretopgallant and the royal backstays, the outer jibstays, and the back ropes carried away; the outer jib and the lower foretopsail split; the foretopgallant and the royal backstays carried away, burst a gun in and broke its lashings; the gun had been run out at the time, and was projecting about 3 feet; the iron band round the fore channel was broken, and also the iron bands round the main channels; and the main channels and some of the irons were bent. They touched the boats and did a little damage to the boat gear on the weather quarter; port gig stove in slightly on the port side, and the port bower anchor driven a small distance into the bill board; the bowsprit started at the heel, and the main channel plates broken; estimated value ₹1,015. The extent of the damage was so serious that it necessitated her return to town (Calcutta) for repairs. The pumps were constantly sounded and found all right. No loss of life.

[A Special Court of Inquiry was held at the Port Office, Calcutta, by the Officiating Chief Presidency Magistrate, on the 31st May and 2nd, 5th, and 11th June, under sections 7 and 9 of Act V of 1883 (The Indian Merchant Shipping Act), for the purpose of making an inquiry into the cause of the collision between the British ship *Star of Italy* and the Pilot brig *Coleroon,* which casualty occurred at the Sandheads. The Court recorded that it first made a preliminary investigation under section 7 of the above Act, taking the evidence of the masters of the respective vessels and of others whose evidence appeared to have been material. In the course of the preliminary investigation it appeared to the Court that there were sufficient grounds for

framing a charge against the master of the ship *Star of Italy*. The Court thereupon directed the parties to withdraw, and on their withdrawing framed a charge against the master, charging him as follows—"that by his wrongful act or default he caused the British ship *Star of Italy* to come into collision with the Pilot brig *Coleroon,* causing damage to her." A copy of the statement of the grounds upon which such charge was framed, and of the charge itself, was then handed to the accused, and the Court adjourned for the trial of the charge until the 2nd of June. On the Court re-assembling on that day the accused was asked whether he pleaded guilty or not guilty to the charge. He pleaded "not guilty," and the Court therefore proceeded with the trial. The witnesses for the prosecution were then called, sworn, and examined, and on the conclusion of their evidence the President then asked the accused whether, having heard the evidence, he wished to say anything in his defence, reminding him that he need not say anything unless he pleased, and that whatever he did say would be taken down in writing and might be used against him. The accused thereupon asked to be allowed to read a written statement, and on permission being given he did so. The accused was present in Court during the whole of the proceedings, and had full opportunity of cross-examining the witnesses called by the prosecution and of making a defence, but he called no witnesses. The Court observed that it appeared that on the morning of the 20th May, at about 6 to 6-30 A.M., the ship *Star of Italy,* bound for Calcutta, was first sighted by the *Coleroon* on her weather quarter from 7 to 8 miles off, the Pilot brig being at that time on the starboard tack, about 5 miles to the eastward of the Eastern Channel lightship, Sandheads. The weather was fine, and there was a commanding breeze from the S. S. W. Shortly after sighting the *Star of Italy* the *Coleroon* went round and hove-to on the port tack, bringing the *Star of Italy* about two points on the weather bow, heading towards her. The commander in charge of the pilot brig after heaving-to made preparation for hoisting out the boat for the pilot to board the approaching ship, and when the vessels were about 3 miles apart he hoisted the signal "heave-to on port tack," the object, as the commander of the Pilot brig explained, was to prevent the *Star of Italy* heaving-to on the opposite tack and thereby giving the pilot boat an unnecessary pull. As the ship *Star of Italy* closed with the brig she appeared to be steering to pass close under the stern, apparently with the intention of "heaving-to" to leeward, but when she had closed to within about half a mile she appeared to round-to a little and to be heading for the brig's weather quarter, and when closer still to be heading straight for the weather gangway. She came in this direction till she had approached within a few ships' length, and then the commander of the *Coleroon* fearing a collision filled his main yard and put his helm up, hoping thus to avert a collision, which to him appeared inevitable. Immediately the *Star of Italy* brought the wind on the quarter, she came to very rapidly indeed, but not in time to avert a slight collision, carrying away the jibboom, the foretopgallantmast, and slightly damaging the fore channels, &c., of the Pilot brig. The Court recorded that the story of the accused (master of the *Star of Italy*) agreed with the above in the main. He stated that his original intention was to have passed astern of the Pilot brig, but that when he got to within about 2 miles from the brig, he observed the signal "heave-to on the port tack." This signal, he stated, he considered imperative as an order to heave-to at once, and to windward of the brig. He accordingly gave the order immediately to heave-to to windward, judging that there was ample space between the vessels to warrant his doing so. Contrary, however, to his anticipations the *Star of Italy* hung for some time before coming up to the wind, and to this cause he attributed the collision with the Pilot brig. The Court observed that what ap-

peared to have happened was this, that the accused, who was steering to go under the stern of the *Coleroon* in order to heave-to on the port tack to leeward of the brig, suddenly saw the signal referred to, which up to that time had been hidden by the brig's sails. Thinking this an imperative signal to "heave-to" at once, and judging he had sufficient room to carry out that manœuvre to windward with safety, he put his helm down and braced sharp up his afteryards at the same time. The Court recorded that from all the evidence taken it appeared that the master of the *Star of Italy* had not sufficient space to work his vessel in, and being responsible for her safe navigation, he ought not to have been overruled by any signal given by the brig; the Court therefore considered that the master was entirely to blame for having attempted to heave-to on the port tack to windward of the brig when there was not sufficient distance between the vessels to allow of it. The Court accordingly found the accused guilty of having, by his wrongful act or default, caused the British ship *Star of Italy* to come into collision with the Pilot brig *Coleroon,* causing damage to her. The Court remarked that it did not, however, under the circumstances, consider that it should deal with his certificate. But it considered that the master of the *Star of Italy* ought to be most severely censured. The Court accordingly passed upon the master a severe censure.]

158. The British iron ship STAR OF ITALY [of Belfast, 1,570 tons register, official number 78103], from London to Calcutta, with a general cargo. It appeared that the *Star of Italy* arrived at the Sandheads on the night of the 19th May, and the master, after looking for a pilot all night, discovered two brigs to the eastward, and on the following day at daylight she bore away for the brig, which had a red flag flying. The master of the *Star of Italy* stated that on the morning of the 20th May he was on watch and sighted the Pilot brig *Coleroon* at 6 to 6-30 A.M., and was in charge of the vessel from that time up to the collision with the Pilot brig. Before sighting the brig the ship was standing to the S. W., and after having sighted the master wore the *Star of Italy* and stood away to the East. The *Coleroon* was on the starboard tack, and was distant 6 miles. When the *Star of Italy* was about 4 miles apart the brig tacked and hove-to, with her head to the West. The ship kept away, and the master squared the yards with the intention of passing under the *Coleroon's* stern, but when 2 miles off, and not before, the master said he saw the brig's signals flying ordering him to heave-to on the port tack. As the master had already said, his original intention was to go under the brig's stern and heave-to to leeward of the *Coleroon,* but seeing the signal then for the first time, he imagined that they were only just hoisted, and that the order was that he should heave-to to windward of the brig. Being then, as he considered, about 2 miles off, he thought he had ample space to wear and clear the brig and heave-to to windward. The master therefore at 1½ miles off gave the order to put the *Star of Italy's* helm hard-a-starboard, which was immediately done, and trimmed the yards to heave-to to windward. Unhappily, when the vessel got before the wind, she was longer turning than the master ever anticipated, as she generally worked like a yacht. The master of the *Star of Italy* stated that he could only account for this by there having been some tide or current of which he was not aware. Everything was done that could have been done to avoid a collision, whilst the *Coleroon*, though she observed the *Star of Italy's* position, seemed to have made no effort to get out of the way, and thus the *Star of Italy* struck the *Coleroon,* which vessel was lying 5 miles to the E.S.E. of the Eastern Channel lightship. The commander of the brig alleged that he noticed the *Star of Italy's* head came round very gradually from pointing to her stern to her gangway, and from this he must have seen that the ship was hanging longer than she should have done, and that if he had then filled her main yard or kept his

brig away, the collision would have been averted. The commander of the brig also said in his evidence, that when 2 miles off it was quite a seamanlike manœuvre to wear the vessel to windward of the brig; the master of the *Star of Italy* considered that in ordinary circumstances he was perfectly justified in attempting to do so, especially when he felt that he was merely obeying the orders signalled from the brig, and which orders the master of the *Star of Italy* considered imperative. The master therefore omitted nothing that should have been done, and could not even think that more could have been said than that he was guilty of an error of judgment in having read the signals of the brig too literally. Had it not been for the signals shown by the *Coleroon*, he would have adhered to his original intention of heaving-to after passing the brig's stern, and there would then have been no collision. Value of damage to the ship *Star of Italy*, ₹1,040. No loss of cargo. No loss of life.

159. The Native kotia JAIRAM PRASAD [of Jabee (Cutch), 22 tons register, official number 50], from Surat to Jabee, with a cargo of cotton seeds. At 2 P.M., on the 21st May, the padow, owing to the intricacy of the navigation of the Tápti or Surat river, struck on a sand bank near Magadalla (Gulf of Cambay), and sprung a leak. Little or no damage to either kotia or cargo. No loss of life.

160. The German iron screw steamer EUROPA [of Bremen, 1,347 tons register, official number not reported], from Colombo to Calcutta, with water ballast. The steamer had proceeded up the Hooghly river under charge of a pilot on the 21st May, and at 10-30 A.M. she was boarded by an assistant harbour master off Kidderpur. The vessel was got underweigh at 1-30 P.M. on the same day, and after having swung to the ebb-tide proceeded to her moorings off No 1, Prinsep's ghát; the anchor was hove apeak, 15 fathoms shackle being down in the locker, when the engines were moved ahead slow, but no sooner they began working it was reported that the chain had parted at about 9 fathoms, carrying with it the anchor, when abreast of the coal depôt at Kidderpur, and about 450 feet outside the buoy. The assistant harbour master said that he had given the engines a turn ahead in order to get head upstream, when the chain unfortunately parted. The link shewed marks of bad iron, one-half being white and the other half being black, and it was reported that it was not the first time that the chain had parted from on board this vessel. No damage to the steamer or cargo. The anchor and chain were weighed and returned to the vessel the next day at a cost of ₹272. No loss of life. (The casualty was accidental.)

161. The British iron ship GRYFE [of Greenock, 1,069 tons register, official number 55437], from Mauritius to Calcutta, with ballast. On the 22nd May the ship in charge of a pilot, and without steam, was proceeding up the Hooghly river; at 2-45 P.M. it was half ebb and the wind was from the S. W., the pilot found that as the vessel's bottom was very foul, and so would not go to windward well he kept close along the edge of the Diamond sands, and therefore well to windward. The lead was constantly going on the sand side to enable the pilot to haul the vessel into the Hooghly bight, when suddenly the man at the wheel allowed the ship to come up into the wind twice, and on the second occasion, before the pilot could manœuvre the yards in order to allow her head to pay off again, the *Gryfe* grounded on the upper edge of the Diamond sands in 12 feet of water; the Diamond harbour old Custom house bearing N. E., and the Buffalo point W. N. W. She remained aground for 2½ hours, when at 5-15 P.M. she floated off with the first of the incoming flood-tide without any assistance. No damage to the ship. No cargo on board. No loss of life. (The casualty was accidental.)

162. The British iron ship TRAVELLER [of Liverpool, 1,420 tons register, official number 78838], from Liverpool to Calcutta, with a cargo of salt. On

the 25th May, the ship under charge of a pilot, and in tow of the steam-tug *Rattler,* was proceeding up the Hooghly river; at 11-15 A.M. she had crossed the Eastern Gut, James and Mary's, and when about half a mile astern of the ship *Belfast* in tow of the steam-tug *Challenge,* also proceeding up, and whilst passing the Nynan marks, the pilot observed the barque *Mohawk* in tow of the tug *Electric,* also proceeding up the river, to take a heavy sheer at Fulta point, part hawsers, and apparently bring up on the edge or tail of the Fulta sands. The ship *Traveller* immediately slowed down till the pilot saw the road clear and the *Belfast* going ahead; she proceeded again about half speed at a quarter of a mile astern, and on the starboad quarter of the *Belfast.* At 11-45 A.M. when the *Traveller* was getting up close towards Fulta point, the tug *Challenge* and the ship *Belfast* were seen to sheer heavily coming right round. The pilot stopped the tug *Rattler,* and directed her to turn the *Traveller* round, but owing to the rapid motions of the *Challenge* and *Belfast* the *Rattler* was forced to let go the *Traveller's* hawser to avoid fouling the tug *Challenge;* the pilot seeing that he could not then safely avoid it, he shifted the *Traveller's* helm to hard-a-port, and endeavoured as quickly as possible to let go the *Rattler's* hawsers, and at the same time called out to the *Challenge* to cut or slip her hawsers. Fortunately it parted, and instead of running into the *Challenge* amidships, the ship *Traveller* came into collision with the steam-tug *Challenge* striking her on her port quarter and doing considerable damage to her. The *Traveller* did not sustain any damage, the *Rattler* took her in tow again, and the vessels proceeded up the river and arrived at town (Calcutta) at 4-30 P.M. the same day. No damage to the cargo. No loss of life. (The pilot reported that he attributed the cause of the collision of the *Traveller* with the tug *Challenge* entirely to the latter vessel persisting in keeping her hawser fast and in steaming ahead, as, had he not done so, the *Traveller* would have had room to have turned round and gone clear.)

[A Departmental Committee of Inquiry was held at the Port Office, Calcutta, on the 17th June, for the purpose of inquiring into the cause of the collision between the *Traveller*—a ship being towed up the river by the tug *Rattler*—and the steamer *Challenge*—a tug engaged in towing the ship *Belfast,* also up the river,—on the 25th May. After perusal of the reports of the pilots of the respective vessels by the Committee, the witnesses for and against the prosecution were then called and examined. The Committee observed that from the evidence produced, it appeared that the collision between the ship *Traveller* and the steam-tug *Challenge,* both being under charge of pilots, was merely an accident, and that if any blame attached to any one, it did to the steamer *Challenge,* the master of which vessel (also a licensed pilot for the river Hooghly) should have cut the tug's hawsers sooner in order to have made room for the approaching vessel.]

The Port Officer observed that it appeared that those vessels passed the James and Mary's on the same day, *viz.,* 25th May, near the time of high-water in the following order, in tow of steam-tugs:—(1) the *Mohawk,* (2) the *Belfast,* and (3) the *Traveller,* and apparently they passed Hooghly point at a safe distance apart; at any rate, from the telegraphic report, the ship *Traveller* was not too near the ship *Belfast.* On rounding Fulta point, the ship *Mohawk* took a sheer and had to let go her hawsers and anchor, and in consequence the *Belfast* ordered her tug to go dead slow to avoid approaching too near until the *Mohawk* and her tug were out of the difficulty. Although the *Traveller* also slowed, there was little doubt she was by this accident brought somewhat nearer to the ship ahead (the *Belfast*) than she had been. On the *Belfast* rounding the same point, her tug, the *Challenge,* took a broad sheer in towards the bank, dragging the ship after her, and both vessels went so far that they had to turn quite round, and at the time of the accident, the *Belfast* had her head about fair down the river close

to Fulta point, and the tug *Challenge* was heading more across the river at right-angles to the ship with her hawser tight, endeavouring to turn the vessel round. As soon as the pilot on board the *Traveller* saw what had occurred, he took the only measure open to him by ordering his tug to turn him round head down the river, and this order was obeyed by the tug, but as all this time they were coming up with the tide, and their momentum through the water, the tug had to let go the hawsers of the *Traveller* to avoid fouling the *Challenge,* and the pilot was obliged to attempt to run between the *Belfast* and her tug, hailing them to cut or slip the hawser. The master of the *Challenge* said that this was done as soon as they could, and both in the ship and tug, whereby the hawser was nearly lost altogether, and had it been only done a few seconds sooner, the *Challenge,* whose engines were going full speed, would have shot ahead and gone clear. As it was, the *Traveller* nearly cleared, but struck the *Challenge's* quarter, doing considerable damage to the stern. The *Traveller* and *Challenge* then anchored, and no further damage was done. The *Traveller* received no damage whatever. The Port Officer agreed with the Committee that the occurrence was accidental, but did not attach any blame to the *Challenge.* The whole of the evidence was unsatisfactory and contradictory. Every one seemed to have been too much engaged paying attention to his own vessel and immediate duties to note the proceedings of other ships with any accuracy, and it was a case he had considered carefully. He had himself also questioned both the pilots and the tug pilots. He considered the pilot of the *Traveller* behaved with coolness and presence of mind, and he was more disposed if anything to be too cautious than to have ran any risk. The pilot thought that if his own tug the *Rattler* had not let go there would have been room for them both to have turned without being too near the *Challenge.* This was however impossible to have proved or to have given an opinion on.

163. The British iron steamer CHALLENGE [of Calcutta, 257 tons register. official number 49319], was employed as a steam-tug in the Hooghly river, On the 25th May the tug *Challenge* was towing up the ship *Belfast,* in pilotage charge, in the Hooghly river; the tug had proceeded from Diamond harbour to the Eastern Gut, James and Mary's, slow, after which she went full power to cross the Gut; and went slow again in order to allow the ship *Mohawk* in tow of the *Electric,* which was ahead of her, to round Fulta point at a safe distance, the ship *Traveller* coming on astern of the *Challenge* in tow of the *Rattler.* About 11-35 A.M. the *Challenge* went dead slow, the ship *Mohawk* having taken a heavy sheer she had to port her helm. The tug *Challenge* took a heavy sheer to port and the *Belfast* a heavy sheer to starboard, which caused the steamer to go round, the *Belfast* following her quickly. Whilst turning round, the pilot of the *Challenge* observed the *Traveller* coming straight for the *Belfast,* when fortunately the latter vessel suddenly sheered out and the *Challenge* cut the hawser to avoid a collision. Just as the pilot of the tug had done so, the *Traveller* struck the *Challenge* on the port quarter when off Fulta point. The pilot stopped the steamer, and finding no damage below water line, she steamed to the westward, but the rudder not acting, she anchored. The *Challenge* after having cleared and secured the wheel chain and block, weighed, and as she did not think it safe to take the *Belfast* in tow, she proceeded to Fisherman's point and anchored. The steamer in the meantime cleared away the wreck and secured her steering gear, after which she took the *Belfast* in tow again, and safely proceeded up to town (Calcutta). The *Challenge's* port quarter was badly damaged, the bulwarks and the steering gear carried away, the awning and the boom stanchions, &c., also carried away, and the covering board damaged and chafed; estimated value ₹600. No loss of life. (The master of the *Challenge,* also a pilot, stated that he had by the pilot's orders kept a safe distance from the *Mohawk,* for the purpose of allowing the *Challenge* to clear her

in case of sheering or turning round. The *Traveller* followed the *Challenge* too close to avoid a collision in case the *Belfast* sheered or turned round—all of which happened. Had the *Traveller* kept a safe distance, the *Challenge* would have turned round and proceeded on all right.)

164. The British iron ship GATEACRE [of Liverpool, 1,355 tons register, official number 76541], from Calcutta to London, with a cargo of jute. On the 27th May the ship, in charge of a pilot, and in tow of the steamer *Defiance,* was proceeding down the Hooghly river; at 6 A.M., on turning round below Messrs. Gladstone Wyllie's premises at Garden reach, first the port hawser and then the starboard hawser of the vessel parted whilst the *Gateacre* was right across the river and heading for the northern bank. The ship thus slightly grazed the soft mud bank with her steamer; but as she had sternway on she immediately swung to her anchor with 6 fathoms on her inshore side, and as the steamer was able, and did steam up between the *Gateacre* and the bank, the pilot was really in doubt whether or not the vessel did touch the ground, as it was so momentary. No damage to the ship or cargo. No loss of life. (The casualty was unavoidable.)

165. The British Indian hodi BHAWANI [of 12 tons register, official number 1746], from Karanja to Vesáva, with a cargo of paddy. At 5-30 A.M., on the 27th May, whilst the hodi was off the village of Yerangal, Bombay harbour, she met with a chopping sea, and having filled with water she sunk, but was subsequently recovered with little or no damage. Cargo all lost, value ₹152. No loss of life.

166. The British iron screw steamer SURREY [of London, 1,939 tons register, official number 82885], from Bassein to Malta, with a cargo of rice. On the 28th May the steamer, in pilotage charge, was proceeding down the Bassein river; at 11 A.M. the vessel, when about to come to an anchor during the first quarter of the ebb-tide off Haingyee or Negrais island (Burma coast), the pilot turned her head round to the N. E., when in bringing her up the chain parted at 15 fathoms, losing the bower anchor; the first officer reported that the windlass was clear at the time. No damage to the steamer or cargo. It was reported that no anchor and chain were supplied at Bassein, and as the lost articles were lying in a very exposed position at the mouth of the river, no attempt at recovery was practicable till the monsoon weather moderated. Value of the anchor and chain, about ₹700. No loss of life. (The Port Officer stated that the pilot had obtained one year's leave to Europe, and for that purpose had gone in the steamer *Surrey,* at the same time piloting her from Bassein to sea. He thus left his license at Diamond island, and proceeded to England in the vessel, *viâ* Colombo, from which port he forwarded a report regarding the above accident; hence the Port Officer was unable to call for further particulars.)

167. The British wooden barque MAID OF ALN [of North Shields, 497 tons register, official number 70397], from Chittagong to Trinidad, with a cargo of rice. It appeared that the barque was loaded with a cargo of rice in bags, and was proceeding down the Kornafuli river (Chittagong coast), to sea, under charge of a pilot. The pilot had been on board the vessel from the 22nd May, waiting for a tug to tow her out. As the vessel had been detained for six days in consequence of there being no steam-tug sufficiently powerful to tow her out, as also of the strong winds that then prevailed, the pilot proceeded with the vessel on the 28th May. At 7-30 A.M. on that day it was ebb-tide and the weather was fine and clear; there was a light breeze blowing from E. S. E.; the vessel when off the Juldia flagstaff took the ground on the bar and remained aground for 4½ hours; at noon of the same day, when the flood-tide made, she floated off and was safely anchored. Preparations for assisting the vessel were made by the Port Department, but the barque came afloat herself without any help. The *Maid of Aln* was subsequently towed to sea from the Juldia anchorage by the

port steam launch *Active*. No damage to the barque or cargo. No loss of life.

[A Departmental Committee of Inquiry was held at the Port Office, Chittagong, on the 29th May, for the purpose of inquiring into the circumstances attending the grounding of the barque *Maid of Aln*. The Committee recorded that from the evidence of the master, the first officer, and the men at the lead and wheel, it appeared that the pilot, at 5 A.M., on the 28th May, hove up as soon as the ebb made, and the vessel was got underweigh and commenced to drop down, but when on the Juldia bar she broke her sheer and could not be recovered, and unhappily touched the ground; the tide falling she remained fast until the flood made, when she floated and was safely anchored, no damage having been done to the vessel or her equipment. The Committee observed that the accident was fortunately of a trifling nature, and from what they could learn, was owing to the pilot having started a little too late; although this was not quite clear, at any rate, the water had fallen considerably by the time the vessel was on the Juldia bar, there being only 18 feet. The barque drew 16 feet 10 inches, and her bottom being so near the ground, she would not steer, and having taken a sheer against her helm, she could not be recovered; chain was paid out, but the anchor did not hold, and the barque grounded. The Committee were of opinion that a reprimand to the pilot would be sufficient, and to warn him to be more careful in future. The Committee observed that the only fault they found with the pilot was in having attempted to do too much, and considered that a vessel drawing 16 feet 10 inches, or say 17 feet nearly, should not have ventured to have dropped over the bar, as great risk was always attendant on the attempt. The Committee pointed out that the pilot, a Mahomedan, had been on board the barque *Maid of Aln* from the 22nd May, and was detained for six days owing to there being no steamer sufficiently powerful to take the vessel out against the strong winds that then prevailed, and that those Native pilots owing to their caste often suffered great hardships, as they could not get their meals or food cooked on board, and they were hence obliged to live principally on sugar and biscuits, and consequently this circumstance naturally induced him to attempt to get the barque under his charge to sea with as little delay as possible, and the Committee opine that it was for the above reason that pilots often attempted risks they would otherwise not have undertaken. The *Maid of Aln* was afterwards safely towed over the bars by the port steam launch *Active*, advantage having been taken of a fine night to do so.]

The Commissioner of the Chittagong Division observed that a reprimand to the pilot would be sufficient, and accordingly directed that the pilot be reprimanded, and warned to be more careful in future.

168. The British iron screw steamer WAVERLEY [of Liverpool, 2,022 tons register, official number 84134], from Bombay to Liverpool, with a general cargo. The steamer on the 30th May, in charge of a pilot, was proceeding out of Prince's dock, Bombay harbour. The dock-master stated that on taking the steamer out of dock she was first moved slowly ahead through the gates, the helm was put to starboard in order to straighten the vessel fair through the entrance, as she was slightly angling across it. But when heading fair through the entrance, the dock-master ordered the engines to go "full speed ahead" and then "steady port," but observing that the vessel's starboard quarter was going fast over towards the centre pier, he sang out three or four times in quick succession, as loud as he possibly could, "port." These orders, it seemed, were either not heard, or ignored by the pilot, because neither the master nor the pilot were on the port side of the bridge, where one or both ought to have remained so as to have been able to carry out the dock-master's orders by signs if they could not hear him; at the time the steamer was passing through the gates, the master was working the engine-room telegraph, which was on the

starboard side of the bridge. At 3-40 P.M. on that day the *Waverley's* starboard quarter came into collision with a large coir fender and a small boss fender suspended just inside of the eastern end of the northern side of the centre pier, Prince's dock. The weather was fine, the wind moderate from S. W.; it was slack water, the flood-tide had made at 3-38 P.M., and it was only two minutes after high-water, and the tide being just on the turn therefore no perceptible down set. The dock-master said that he remarked to the harbour master that the helm was nearly hard to starboard, as the steamer's stern passed where the dock-master stood abreast of the gates, and about five seconds before the vessel's side took the fenders the helm was put amidships. The *Waverley* had one plate broken abreast of the main rigging under the sheer strakes, 6 feet in length, on the starboard side, and damaged five frames and reverse irons; estimated value ₹470. No damage to the cargo. Value of damage to the centre pier, &c., ₹200. The steamer, after having effected the necessary temporary repairs, left for Liverpool on the evening of the 2nd June. No loss of life. (It was reported that the casualty might have been avoided had the helm been put hard-a-port when ordered by the dock-master.)

[A Departmental Committee of Inquiry was held at the Port Office, Bombay, on the 31st May, for the purpose of inquiring into the cause of the collision of the steamer *Waverley* with the Prince's dock pier. The Committee recorded that from the evidence adduced of the dock-master, the master and officers of the vessel, and the pilot, they were of opinion that the pilot committed an error of judgment in having kept his helm hard-a-starboard so long as he did, and in not having stationed himself in a position from where he could have seen the dock-master and received his orders.]

The Trustees of the port of Bombay ordered that the pilot be reduced one step, *viz.*, from the list of 1st grade pilots to the list of 2nd grade pilots.

169. The British iron screw steamer MALDA [of Glasgow, 1,269 tons register, official number 68092], from Rangoon to Calcutta, with a general cargo. The steamer, on the 31st May, in charge of a pilot, was proceeding up the Hooghly river; at 2 P.M. on crossing the James and Mary's at half-flood, the steamer failed to answer her starboard helm in consequence of steering aft owing to the steam steering gear having broken down, which caused her to run up the bank at Hooghly point just inside the black Nun buoy. She remained there till 4 P.M., when it being nearly high-water, she backed off and proceeded up the river without having sustained any damage to the hull beyond the loss of a kedge anchor and chain which were laid out to keep her off, as the pilot was compelled to slip it. She was aground for two hours. The anchor and chain were lost about a ship's length, below the Nun buoy in the No. 3 track. No damage to the cargo. The value of the anchor and chain lost by the S.S. *Malda* was not known, and it was reported that they had not been recovered. No loss of life. (The casualty was accidental.)

170. The British Indian muchwa LUXMI [of Pen (Konkan), 7 tons register, official number 630], from Durshet to Bombay, with a cargo of firewood. At 4 A.M. on the 31st May the muchwa, owing to the ignorance of the tindal, ran upon the Kolhew rock, off Karanja bandar, Bombay harbour, and foundered. She was subsequently recovered with little or no damage. The cargo was all lost, but its value was not reported. No loss of life.

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171. The British iron screw steamer LORD DERBY [of Newcastle, 1,132 tons register, official number 76221], from Vizagapatam to the United Kingdom, with a cargo of jaggery. It appeared that the steamer was chartered to load a full cargo of cane jaggery at Vizagapatam and Cocanada for the United Kingdom. After taking her part cargo at Vizagapatam, she arrived at Cocanada on

the 1st June. The master stated that at 7 A.M. of that day on the engines being reversed in order to give her sternway after dropping the anchor in the roadstead in 5 fathoms of water, the Vakalapudi lighthouse bearing N. W. by W. and the Cocanada old lighthouse S. W. ½ W. (Madras coast), it was found that the propeller shaft had snapped clean off in the stern gland, and the propeller and the outer portion of the shaft were gone. The Surveyors proceeded on board the *Lord Derby* on the afternoon of the 3rd June, and after a careful survey and consideration of the reports of the divers employed to examine the steamer externally below water, they reported:—(I) that the shaft was broken at the outer end of the stern tube, and that the propeller and a portion of the shaft had been lost; (II) that the stern-post was damaged and jagged to what extent could not then be discerned; (III) that an examination of the after-compartment, through which the stern tube passed, showed that a severe blow or blows had been dealt on the port side, smashing up the cement into pieces; and (IV) that to all appearances the outer end of the stern tube was more or less damaged, as part of the stern tube nut securing the shaft bearings was found broken off. They accordingly recommended that the vessel be towed to the nearest port, where she could be docked, as they were of opinion that the damage could not be repaired at Cocanada in a satisfactory way, if at all; also that as there was every appearance of the rudder post being damaged, all the cargo then on board should be at once discharged, and that, in so discharging, the cargo should first be put out from the after-part of the vessel, so as, if possible, to bring the stern tube out of the water. They advised that another survey should be held after the cargo was taken out. The steamer had a spare propeller on board, but no spare shafting, and it was extremely doubtful whether, even were the necessary shaft available, it could be fitted at Cocanada. The steamer had 1,100 tons of cargo on board shipped at Vizagapatam, and it was feared that it would be necessary to discharge this, whilst the vessel would probably have to proceed to Calcutta or some convenient port in tow for the purpose of being docked and fitted with a new shaft and propeller. The master awaited instructions from his owners, pending receipt of which nothing was done beyond sweeping for the lost propeller, and hopes were entertained for its recovery, but all attempts proved futile. The vessel was again surveyed on the 30th June, when the Surveyors reported that, after a very careful and minute examination, they found:—(I) that the *Lord Derby* had been lightened and trimmed by the head, so that the stern tube was well out of water; (II) an examination of the broken end of the tail end of shaft showed pure lamination 4½ inches long by quarter inch wide, and that a three-quarter inch pin-hole had been bored into the shaft till it came into contact with the lamination, which circumstance, they were of opinion, led to the weakening of the shaft, at that place the breaking being a clean one, and such as would have been caused by the propeller coming in contact with any submerged substance; (III) that the stern tube was found to be in good order; it would be better to renew it with four strips lignum vitæ on the lower side of stern bush; (IV) that the rudder post, stern post, and keel piece were intact and in good order; and (V) that on examination of the port counter it showed no signs of having received any damage or blows as surmised in the former survey; the cement had been started up by the tremendous shock experienced when the propeller dropped off. The Surveyors remarked that having been informed by the master and the chief engineer of the steamer that it was their intention to obtain a new tail end of shaft from Calcutta and carry out all repairs at Cocanada, the Surveyors on looking at the circumstances and facts that the steamer had been trimmed with safety so as to enable the work to be done, that the anchorage was safe with smooth water, the general direction of the wind at that time of the year being off the land, that the cyclone season was past, considered it a safe and

practical course. The *Lord Derby* was finally examined on the 30th July. The Surveyors reported (I) that they found that the tail end of shaft and propeller had been renewed, and after a very careful examination showed that the propeller nut had been properly screwed up and secured; (II) that on proceeding inside they found the stern tube gland properly packed and tight, also the shaft couplings properly tightened up and secured, the main bearings also in good working order, the tunnel plating properly re-rivetted and covered with good sheathing; (III) that the engines were moved alternately full speed ahead and astern for over a period of ten minutes, and worked most satisfactorily. The Surveyors stated that they were satisfied that all the repairs needed had been carried out, and that the vessel was in every respect staunch and seaworthy. Value of damage to the steamer about £100. Value of damage to the cargo, about £100. Value of damage to the machinery, £400. No loss of life. (The cause of the casualty was unknown.)

172. The British iron ship GENISTA [of Liverpool, 1,799 tons register, official number 86256], from Calcutta to London, with a general cargo. On the 3rd June the ship was proceeding down the Hooghly river in charge of a pilot and in tow of the steam-tug *Defiance;* at 6 A.M., when the vessel arrived off Fulta point, a fresh N.W. squall blowing, the tug suddenly sheered into the point, and being unable to recover herself, the hawsers were slipped, when the *Genista* sailed down; but whilst abreast of Nynan the rain having become thick, and obscuring everything, the pilot anchored her. During the height of the squall the master of the tug observing that a Native boat had capsized, he went to her assistance; a boat was lowered, and the crew (4 men) were picked up, and after steering back to the *Genista,* they were transferred to the ship's tow boat, whence they were safely landed at Nynan. The tug after this took the *Genista* in tow again, but the pilot in heaving the anchor found that it had hooked something heavy; attempts were made till 2 P.M. to drag her clear on both flood and ebb, but unsuccessfully. The pilot then dispatched the tug steamer for the Anchor Hoy boat *Vulcan,* which vessel was employed close by in sweeping for lost anchors and chains of other vessels. On the arrival of the *Vulcan* the officer in charge of that vessel refused to touch the anchor until the pilot of the *Genista* had slipped it; whereupon, to avoid further risk to his vessel, the pilot slipped the anchor with 12 fathoms of chain at 4 P.M. abreast of the Nynan creek, and proceeded to Fisherman's point, where he safely anchored her for the night. No damage to the ship or cargo. The anchor and chain lost by the *Genista* were not replaced at Calcutta, neither had they been recovered, but the value of the anchor and chain was about ₹877. No loss of life. (The casualty was unavoidable.)

173. The British iron screw steamer MECCA [of Glasgow, 937 tons register, official number 68059], from Bombay to Zanzibar, with a general cargo. It appeared that the steamer left Aden at 3 P.M. on the 4th June with 16 passengers, and a general cargo for Zanzibar. The master stated that the vessel was steering on a E. ¾ S. course, with no sails set; the weather was fine and clear and the wind calm. At 8-40 P.M. the same day the steamer whilst in the Gulf of Aden in latitude 12° 40′ N., longitude 45° 47′ E., by dead reckoning, and about 43 miles eastward of Aden, a sudden noise was heard at the after-part of the vessel, the master perceived that the engines were racing away at a very high speed, vibrating exceedingly. He thereupon ordered the engines to be stopped, and on examining the machinery and shafting, the chief engineer concluded that the propeller shaft was broken. The steamer was then towed back to Aden harbour by the S.S. *Rewa* where the blades of the propeller were removed; she left Aden on 25th June in tow of the S.S. *Abyssinia* and arrived at Bombay on the 5th July. The Engineer Surveyor to the port of Bombay proceeded on board of the steamer *Mecca* whilst lying in the British India Steam Navigation

Company's dry dock, on the morning of the 14th July, for the purpose of examining and ascertaining the extent of damage she had sustained to her machinery when on a voyage from Aden to Zanzibar and African coast ports. The Surveyors reported that on examining the stern tube from the outside, it was found broken, caused no doubt by the broken parts of the shaft revolving with such rapidity. They also examined the propeller shaft which was broken short off at the fore end of aft lines. The strength of the material of the shaft was ample in the Surveyors' opinion and was in accordance with the Board of Trade's rules. The thickness of the tube was measured and found to have been quite strong enough and up to the Board's requirements. The broken shaft had been drawn in and removed to the shore, and the broken and defective tube had been advised to be withdrawn. The Surveyors were of opinion that the cause of the shaft having broken, as it had done, was a flaw, which must have existed when it was manufactured and escaped detection when last drawn in, consequently no blame could be attached to any person. The Surveyors recommended that the shaft and tube be removed and renewed, when, if properly carried out, they were of opinion that the steamer would be perfectly staunch and seaworthy ,and fully able to load and continue her voyage to any part of the world. Value of damage to the steamer and cargo not known. Value of damage to the machinery, ₹23,000. No loss of life.

174. The British iron screw steamer SIRDHANA [of Glasgow, 2,040 tons register, official number 80448], from Calcutta to Bombay, with a general cargo. On the 4th June the steamer, in pilotage charge, was proceeding down the Hooghly river; at 7 A.M. it was the first quarter of the flood-tide, and the vessel having rounded Melancholy point, was steering down in mid-channel, when the steamer took a run for the bank. The pilot instantly ordered the helm to be put hard-a-port, but on finding it went only half over, and the steamer not answering it, he directed the engines to go full speed astern, when she touched the bank slightly, abreast of the red Nun buoy in Jar Maker's reach with her stem just before she had gathered sternway. The pilot immediately backed out clear of the bank and safely proceeded down the river. The pilot reported that when the steamer touched the ground, he found 10½ fathoms of water abreast the bridge. No damage to the steamer or cargo. No loss of life. (The casualty was accidental.)

175. The British iron screw steamer CLAN MACINTOSH [of Glasgow, 2,635 tons register, official number 87690], from Calcutta to Madras, with a general cargo. The master stated that at 11 A.M., on the 8th June, the Pulicat light bore West, distant 5 miles, the steamer steered S. by E., true, and at 11-45 A.M., the vessel, going about 10 knots an hour, was found to have stopped her way on what the master considered a mud bank in latitude 13° 18′ 0″ N., longitude 80° 25′ 30″ E. (Coromandel coast). From the bank the Pulicat lighthouse bore N.W.¼ N., and the Madras lighthouse S.W.¾ S., and nearly abreast of the Ennore shoal; the master said that on sounding with the hand lead immediately on grounding, a depth of 4 fathoms was found on the starboard side and 6 fathoms on the port side, and shortly after no bottom, the steamer drawing then 24 feet. No damage to the steamer or cargo. No loss of life. (The casualty was attributed to having been caused by incorrect charts.)

176. The British iron screw steamer OAKFIELD [of Liverpool, 1,123 tons register, official number 86344], from Point de Galle to Port Said, with a cargo of rice for orders. On the 11th June it was monsoon weather, the wind was blowing a strong gale from the S.W., and there was a rough cross sea; the steamer was steering West with the fore and aft sails set, and whilst in latitude 7° 30′ N., longitude 56° 0′ E. (Arabian sea), she met with an accident to her machinery; two receiver joints on the boiler having broken.

The *Oakfield* put into Aden, at which port she was detained for 40 hours repairing the damage. Value of damage to the steamer and cargo not known. Value of damage to the machinery, £70. No loss of life.

177. The British iron screw steamer CALCUTTA [of Glasgow, 549 tons register, official number 67984], from Rangoon to Calcutta, with a general cargo and 480 passengers. The steamer left Rangoon on the 7th June and arrived at Akyab on the 9th, and left that port at noon of the 10th, bound for Calcutta, *viâ* Chittagong, with a general cargo and 480 passengers on board. The master's statement was that on the morning of the 11th June he proceeded up the Kornafuli river (Chittagong coast); the wind at the time was from the S.E. and gentle; the tide was flood-tide and the weather was overcast. At 1 P.M. the steamer *Calcutta* when abreast of the Ring buoy, the master attempted to turn and back up to the mooring buoy, but the steamer unfortunately got into an eddy of the tide and did not answer her helm. The master finding that the vessel was drifting up the river with the tide on to the French barque *Angéle,* which was at anchor just below Messrs. Bulloch Brothers' rice godowns, went half speed ahead, but not in sufficient time to clear the barque, and immediately afterwards the steamer *Calcutta* came into collision with the barque *Angéle,* her port side bending the latter's dolphin striker. The *Calcutta* had a boat smashed, davits broken off at rail, and some 20 feet of side rail carried away. Value of damage to the *Calcutta* not reported. No loss of cargo. No loss of life.

(The Port Officer of Chittagong recorded that the accident was fortunately of a trifling nature. He was of opinion that the master of the S.S. *Calcutta* (a licensed pilot of the port of Chittagong) had committed an error of judgment in having proceeded up the Kornafuli river so near the shipping with a flood-tide in contravention of Rule VII of the Chittagong Pilot rules, which forbade vessels steaming or sailing on a flood-tide amongst the shipping in port. The Port Officer observed that it was true that the pilot attempted to turn the steamer *Calcutta* when at the Ring buoy; but although there was sufficient room to have turned a vessel, provided she answered her helm quickly, in this case she was stated not to have done so, and consequently came into collision with the barque *Angéle.* The Port Officer considered the pilot (master of the S.S. *Calcutta)* to blame in the matter for having attempted to turn so near the shipping, and recommended that he be fined ₹20 for violation of Rule VII of the Pilot rules.)

The Commissioner of the Chittagong Division directed that the pilot forfeit ₹26-4, being the amount of the inward pilotage earned by the master of the S.S. *Calcutta* (who was also a pilot of the port of Chittagong), for violating Rule VII of the Chittagong Pilot rules.

178. The French wooden barque ANGÉLE [of Havre, 393 tons register, official number 9063], from Mayotta to Chittagong, with sand ballast. On the 11th June the barque *Angéle* was lying moored at her moorings opposite Soreatulah's godowns in the Kornafuli river (Chittagong coast), ready to load a cargo of rice. She had her head to the S.W. At about 1 P.M. the S.S. *Calcutta* was proceeding up the river, and when near the Ring bar buoy, the master of the steamer (who was also a passed pilot for the port of Chittagong) put the helm hard-a-port and stopped the engines; but not answering her helm, the engines were ordered half speed ahead. The *Angéle* at that time was riding to the flood-tide, and her jibboom being rigged out, was fouled by the S.S. *Calcutta's* quarter boat davits; the *Angéle's* martingale and some sundry gear were carried away. Value of damage not reported. No cargo lost. No loss of life. (The casualty was caused by the carelessness of the master of the steamer in having steamed the *Calcutta* up the Kornafuli river on a flood-tide amongst the shipping, contrary to Rule VII of the Chittagong Pilot rules).

179. HANNIBAL *(see paragraph 143).*

180. The British wooden ship ASSYRIAN [of Cork, 1,121 tons register, official number 75685], from New York to Calcutta, with a cargo of kerosine oil. On the 15th June the vessel, in charge of a pilot, was proceeding up the Hooghly river without steam; at 5-15 P.M., during slack water, and the wind being light from the S.S.E., the vessel crossed the Gut, James and Mary's, with 13 feet showing at Hooghly point, under sail, and in keeping away from the black Nun buoy, the wind fell light, when the vessel would not answer her helm, but made a run for the flat. The pilot then threw all the yards aback to avoid going on the flat, but all to no purpose. The vessel unfortunately grounded on the flat above Hooghly point, and remained ashore for 24 hours, when she floated off without assistance at 4 P.M. on the 16th; the pilot then let go his anchor and brought the vessel up. Subsequently the Hooghly river surveying steamer *Resolute* took her in tow and proceeded to Fisherman's point, where the vessel was brought up for the night. The ship *Assyrian,* after discharging her cargo, was placed in the Hooghly Dry dock at Howrah for examination of her bottom, and was there repaired; the cost was ₹5,200. No damage to the cargo. No loss of life. (The casualty was unavoidable, owing to the wind having fallen light. The pilot appeared to have acted properly, and there was no necessity for any further notice being taken. The *Assyrian* being slightly over the draft, allowed to be moved without steam; the pilot explained she was 20 feet in the salt water and drew 3 inches more in the fresh water.)

181. A British Indian muchwa (name unknown) [of Alibág, registered tonnage not known, official number 369, age unknown], from Revas to Bombay, in ballast. The tindal stated that the muchwa left Revas with 8 passengers on board, and on the 17th June, when about 2 miles South of the Middle Ground Bombay harbour, she met with a heavy squall from the S.W.; at 7 A.M. the boat was caught aback and swamped with the heavy seas. She being water-logged, the mast and sail were got down to ease her, and at 10 A.M. she was towed by another muchwa into a place of safety for repairs. Value of damage to the muchwa not reported. The crew, 7 men, and 8 passengers were saved by being taken off and carried on to Bombay by another vessel.

182. The British iron screw steamer JOSEPH FERRENS [of London, 1,289 tons register, official number 82788], from Madras to London, with a general cargo. On the 18th June the steamer was steering on a W. by S. course with fore and aft sails and topsail; the weather was fine and hazy, the wind moderate from S.S.W., and the sea also moderate from W.S.W. At noon, when 120° miles to the westward of Cape Guardafui, in latitude 11° 53′ N., longitude 49° 02′ E. (Gulf of Aden), the steamer having run short of coals, burnt 5 derricks, topmast topsail yard, topgallant yard the side ladder, 24 shifting boards, the deck from under the life-boat, and a portion of the cargo, being about 300 bags of ground nuts and kernels. She put into Aden for coaling and repairs. Value of damage to the steamer, £250; cargo, ₹2,400. No loss of life.

183. The British Indian dingy MEERAPUR [of Kurrachee, 22 tons register, official number 1086], from Keti to Kurrachee, with a cargo of barley and gunny bags. The tindal stated that on the 20th June, owing to the hazy weather and slight showers of rain, he was unable to navigate the dingy; at 6 P.M. the *Meerapur* took the ground and sprung a leak at Raw-warro-Koond near the Patani mouth of the river Indus (Sind coast). She was swamped in 5 feet of water, and was subsequently recovered after having sustained partial damage, amount not stated; the whole of the cargo was damaged, value ₹300. No loss of life.

184. The British Indian muchwa LAXMEE [of Alibág, registered tonnage, official number, and age not reported], from Revas to sea, with fishing nets to catch fish. The tindal stated that on the 21st June the muchwa left Revas for the fishing ground, when at 10 P.M. she was capsized by a sudden and

severe squall, and turned keel upwards between the Outer lightship and the Prongs' lighthouse, entrance to Bombay harbour. The crew held on to her, and subsequently righted her, and drifted up the harbour with the flood-tide, when on the following day she was picked up by the pilots' steam launch and towed to Trombay. Value of damage to the muchwa, ₹175. No cargo on board. No loss of life.

185. The British iron screw steamer ATHOLL [of Leith, 923 tons register, official number 62292], from Calcutta to Hong-Kong, *viâ* the Straits, with opium and a general cargo. On the 21st June the steamer was proceeding down the Hooghly river in charge of a pilot; at 1-55 P.M. it was half-ebb, and the vessel on going down the Bellary channel suddenly took the ground; the engines were reversed full speed, but unsuccessfully. She remained aground for four hours, and when the flood-tide came in at 6 P.M. she floated and continued on her voyage; the Lower Eastern Bellary buoy bearing E. by S.½ S., and the Haldia tripod S.W.¾ S., distant about half a mile and about one-third the breadth of the channel from the western bank. The pilot stated that as nothing less than 15 feet in a westerly track was reported in the above channel, he could only attribute the grounding to an extension of the bank or some other unknown obstruction; the steamer remained quite stationary in an upright position, heading fair down the channel, and when the tide rose to her draft she floated immediately on moving the engines astern. The least water the pilot obtained during the time the vessel was aground was 15 feet 3 inches, which, allowing the tide to have fallen to 4 feet, gave 11 feet 3 inches water in that locality; 8 feet remained showing at the semaphore for 20 minutes after the accident, when it fell to 7 feet at 2-15 P.M. Shortly afterwards, with 7 feet still up, the semaphore became obscured by thick rain, and continued so for the rest of the day. No damage to the steamer or cargo. No loss of life. (The accident was due to a change in the channel. The Port Commissioners were asked to place a Nun buoy to mark the edge of the flat which appeared to have extended 300 yards from the bank. The Deputy Conservator stated that he did not consider that there was any necessity for laying a Nun buoy in the position named. The vessel grounded on the edge of the flat just North of the old tripod mark, and should have been well known to pilots, as the channel had not in that locality materially altered for the past two years.)

186. The British Indian dhoney MOHAMED MOHIDEEN LETCHMY [of Pámban, 9 tons register, official number 94], from Pámban to Muntapun, with a cargo of coral lime. At 4 P.M. on the 22nd June the dhoney had arrived in Muntapun port (Gulf of Manár), and being overladen she capsized in a squall in two fathoms of water. She was afterwards recovered, having sustained little or no damage; the cargo was all lost. The crew, 4 men, were picked up by boats belonging to the shore.

187. The Italian iron steam launch RAFFAELE RUBATTINO [of Genoa, belonging to the S.S. *Raffaele Rubattino*] was engaged in landing officers and crew. On the 22nd June the launch was at anchor waiting for the master off the Apollo bandar, Bombay harbour; at 2 A.M. she drifted in consequence of the sea and grounded about 20 feet from the bandar walls. She was subsequently recovered, and sustained damage to the amount of ₹1,000. No loss of life.

188. The British Indian sloop MOLA BUX [of Chittagong, 74 tons register, official number 4 of 1884], from Narainganj to Chittagong, with a cargo of rice, gram, jute, &c. On the 23rd June at 6 P.M. the sloop, whilst proceeding through the Mandiar khal, struck, on account of the ignorance of the tindal, on a sand bank off Forashganj in the Megna river (Sunderbuns) and sprung a leak; the crew after stopping the leak continued on her voyage. Little or no damage to the sloop; cargo worth ₹1,745 was damaged and lost. No loss of life.

189. The British wooden barque VICTORINE [of Mauritius, 298 tons register, official number 72120], from Mauritius to Bombay, with a cargo of sugar. On the 22nd June the barque had discharged her cargo, when the pilot boarded her, and was lying at single anchor South of the Cross island reefs in the Bombay harbour; he was ordered to take the vessel to the Patent slip, and for that purpose was waiting for a tug to tow her, which was to be in attendance at daylight. On the 23rd June the tug did not arrive, when the vessel continued riding at her anchor; at 8-15 A.M. the tide was half-flood, the weather was fine, and there was a fresh S. W. wind. The pilot observed a padow heavily laden with salt, and evidently bound to some vessel in the harbour, coming from the shore with the wind free upon the starboard side, and seemed to be trying how close she could shave the barque's stern. Thereupon the pilot called out to the crew of the padow to port his helm, but notwithstanding the padow came into collision with the *Victorine,* thus striking the barque under the starboard quarter, the padow's long overhanging stem going clean through two planks close to the stern-post of the *Victorine,* through the upper and last sheet of copper under the starboard counter, about the 13 feet mark, which was then 4 feet above water. The pilot stated that after the accident he asked the crew of the padow what they were trying to do, whereupon they replied that their helm had carried away, and they could not help it. The pilot said that at this time the padow had got clear of the barque, and he noticed that the tindal still had the tiller in his hands, and he did not see anything wrong with the helm, but observed that the whole of the padow's stem was started; the tindal then put his helm up and ran up the harbour, but shortly afterwards he lowered his sail and anchored North of Cross island reefs, when the pilot sent the barque's boat and obtained the number. The tindal of the padow stated that he intended passing close astern of the *Victorine,* but that on getting near to that vessel her rudder head unfortunately broke, and he consequently could not keep away again in time to avoid the accident. The pilot said that at high-water finding that the tug had not arrived, he had some sails bent and ran the barque to Mazagaon where she would have smoother water and be handier for taking her into the Patent slip on the following morning's tide. The padow's bow was completely started; amount of damage not known. Value of damage to the barque *Victorine,* ₹250. No cargo on board. No loss of life. (The casualty was unavoidable.)

190. The British wooden schooner SERENDIB [of Colombo, 256 tons register, belonging to the Colonial Government], from Jaffna to Colombo, with a general cargo. It appeared that the steamer on the 24th June, in charge of a pilot, having passed the Fairway buoy, entered the Reef Channel, Pámban Pass (Gulf of Manár); at 2-50 P.M. the steamer not having sufficient way on her to answer her helm, took a sheer to port against her helm and grounded, but was backed off in half an hour. No damage to the steamer or cargo. No loss of life. (The casualty was unavoidable.)

191. The British iron ship ALLANSHAW [of London, 1,589 tons register, official number 71665], from Liverpool to Calcutta, with a cargo of salt. On the 24th June the ship, in charge of a pilot and in tow of the steam-tug *Sind,* was proceeding up the Hooghly river; at 2-50 P.M., it being the first quarter of the ebb-tide, the vessel was proceeding to cross the James and Mary's with 14 feet showing; but when in the upper part of the Hooghly bight, the pilot observing that the tide was falling very fast, deemed it imprudent to continue, also as the last water report he was cognizant of was of the 19th June; neither did the dâk boat at Diamond harbour furnish him with the water report. When the vessel was abreast of the *Waterloo* wreck buoy the pilot gave orders to the steamer *Sind* to turn and go back to Diamond harbour, but the tug in turning round could not recover herself, and went close to the *Allanshaw's* port

quarter, pulling the latter's head towards the sands: owing to which the ship shoaled very rapidly, going from 12 fathoms to 7 fathoms, and then afterwards from 5 fathoms to 4 fathoms, when the *Allanshaw* grounded gently—with her heel and both the hawsers parted—on the head of the Hooghly sands about a ship's length from the channel, the steamer then being in 7 fathoms. She remained aground for 8 hours, and on the flood making at 10-40 P.M., the ship floated off, and the pilot allowed her to drift into 11½ fathoms of water, when he moored her for the night in Hooghly bight. The Surveyor to Lloyd's Agents reported that on the 18th August he proceeded to the Hooghly Dry dock at Howrah to make a survey of the bottom of the ship *Allanshaw*. After a very careful examination of the bottom outside, he stated that he could detect no damage caused by the grounding, except that the paint under the bottom was rubbed off in several places; and many of the butts of the bottom plating on both sides showed a little rust, but were not started or leaking. The pintles of the rudder were more or less slack in the gudgeons, especially the lower pintle and the one above it. The Surveyor recommended that the pintles be bushed to fill the gudgeons and prevent the rudder from shaking, and also that the bottom be scraped and painted with two coats of good paint; also that the fastening bolts of the head and stern seacocks be taken out for examination, and if found worn, to be renewed. The ship subsequently, on the 26th August, was surveyed, when it was reported that the repairs advised had been completed, and so far as the Surveyor was able to observe the *Allanshaw* was strong, staunch, and seaworthy, and being tight and well equipped with good ground tackle, sails, hawsers, and lines, she was fit to carry a dry and perishable cargo to any part of the globe, and was, in the Surveyor's opinion, a first class insurance risk. Value of damage to the *Allanshaw*, ₹2,094. No damage to the cargo. No loss of life. This casualty was brought about by the pilot having turned unnecessarily too short round when there was plenty of room to have made a larger circle, and thus would have kept well clear of the sand. The pilot was warned and admonished to be more careful in future.)

192. The British Indian muchwa LAXMI [of Basseen, 5 tons register, official number 3247], from Bombay to Basseen, in ballast. Whilst the muchwa was on her voyage from Bombay, she met with a heavy squall on the 25th June when off the Dongarsan hills, in the Basseen river (Bombay coast); at 6 P.M. she sprung a leak, and the crew not being able to keep the water down she sank, but was subsequently recovered with little or no damage. No cargo on board. The crew, 6 men, swam ashore.

JULY.

193. The British iron screw steamer GLENFRUIN [of Glasgow, 1,936 tons register, official number 84284], from Hankow to London, with a cargo of tea. On the 3rd July, when about 360 miles N. W. of Suadiva Atoll, in latitude 1° 41′ N., longitude 66° 34′ E. (Indian ocean), the main shaft broke, her machinery thereby being rendered useless for a time, and she was practically unmanageable under sail. On the night of the 4th July the *Glenavon* of the same line, also laden with tea, and bound from China for New York, fell in with the *Glenfruin*. At the request of the master of the latter vessel, the *Glenavon* took hold of her, and towed her on her voyage a distance of about 900 miles. Subsequently on the 7th July, the S.S. *Kaiser-i-Hind* passed the *Glenfruin* off the Zebayer islands, Red Sea; she signalled that she broke her shaft at sea, was repairing it, and would proceed to Suez; she required no assistance, and wished to be reported all well. By the 17th July the shaft on the *Glenfruin* had been repaired, so that she could use her engines, though not at full speed, but as it was uncertain whether the repairs to the shaft would hold good, the *Glenavon* kept in company

with the *Glenfruin* until the 20th July, when the latter's engines working well, the *Glenavon* left her and proceeded to New York. The weather being fine, the *Glenfruin* reached her port of destination in safety. Value of damage to the steamer, cargo, and her machinery, £680. No loss of life.

194. The British iron screw steamer KARAMANIA [of Barrow, 2,045 tons register, official number 83989], from Liverpool to Calcutta, with a general cargo. On the 3rd July, the steamer was proceeding up the Hooghly river in charge of a pilot; at 7-45 A.M., when just off Hospital point, the engines moving ahead slow, the vessel experienced heavy rain with thick squall from the S.W., which entirely obscured the river; the pilot instantly stopped the engines and went about to abreast of the Roychak trees and put the helm hard-a-starboard, and after having got her head to W. by S., he let go the port bower anchor in 6½ fathoms of water. At the time it was high-water, and the steamer had between a mile and two miles headway per hour and about a mile of tide. As the chain ran out, the pilot backed the engines first at half speed and then full speed, but notwithstanding this, the chain parted at 42 fathoms, losing the anchor. The vessel therefore had to run back to Diamond harbour, where the pilot dropped the starboard bower anchor, when the steamer was brought up with 15 fathoms cable; the High Palm tree bearing N. 28° E., North Roychak tree N. 53° E., and the South Roychak tree N. 62° E. (magnetic). No damage to the steamer or cargo. Value of the anchor and chain lost by the *Karamania,* about ₹2,762; it was reported that they had not been recovered. No loss of life. (The casualty was accidental.)

195. The British wooden barque KHEDIVE [of Hartlepool, 394 tons register, official number 62541], from Bassein to Rouen and Havre, with a cargo of rice. The master stated that the barque left Bassein (Burma) on the morning of the 29th June, with nothing of note happening till the 11th July; when to the eastward of South Andaman island, in latitude, 11° 50′ N., longitude 92° 55′ E. (Andamans), the *Khedive* experienced very bad weather with heavy sea, and labouring heavily, the foretopgallant mast was carried away, the foretopmast sprung, the starboard hawsepipes started, and a portion of the mainrail on the port side carried away, and the caulking round the waterways and the stanchions became very slack. The master then resolved to proceed to a port of shelter in order to have the damage repaired, when finally, on the 29th August, she put into Mauritus, and on the 2nd September she was examined. The Surveyors recommended that the foremast be taken out for further inspection, and on the 10th, she had the foremast taken out, and it was found that the foretopgallant yard was badly sprung. On the 26th the repairs having been completed, it was not found necessary to put in a new mast, and after having reloaded her cargo, she proceeded on her voyage for Havre on the 30th September. Value of damage to the barque and cargo, ₹8,034. No loss of life.

196. The French wooden barque CILAOS [of Bordeaux, 538 tons register, official number not reported], from Calcutta to Bourbon, with a general cargo. On the 12th July the barque, in charge of a pilot and in tow of the steam-tug *Columbus,* was proceeding down the Hooghly river; at 11 A.M. it was dead low-water, and 6 feet being up at Atchipur, she was proceeding down Moyapur reach, intending to cross in No. 5 track, and when abreast of the marks, the pilot waved and called to the steamer, but got no answer, nor did the tug cross. When the vessel was somewhat below the No. 5 Moyapur Crossing mark, the steamer's helm was put hard-a-starboard, and she attempted to pull the *Cilaos* back into the track, but failed, and the vessel took the ground on the flat above Hiraganj point. The master of the tug *Columbus* endeavoured to keep in the Eastern Fairway track, but, owing to the steamer's wheel chain fouling in the fair lead under the bridge, and having no after steering gear to depend upon, fell a little below No. 5 track when the *Cilaos* grounded. The tug eased her

engines and worked round with the port hawser when the barque came off. The *Cilaos* remained aground for 15 minutes, and on the flood-tide rising, she floated off and proceeded down the river on her voyage, making no water and apparently quite undamaged. No loss of cargo. No loss of life. (The casualty was accidental, inasmuch as it was caused by the steamer's steering chains fouling.)

197. The Cingalese wooden schooner EMANUEL [of Colombo, 92 tons register, official number 31123], from Colombo to Tuticorin, in ballast. On the 15th July the schooner was entering the Inner harbour of Tuticorin (Gulf Manár), the weather was then fine and a strong breeze from the S.W.; at 3 P.M. the *Emanuel,* whilst proceeding into the harbour, carried away her rudder chain just as she was passing the other vessels, when she ran into the schooner *Aramvalartha Ammay,* which was lying at anchor. The *Emanuel's* jibboom, jibs, and the two topmasts were carried away; also damaging the topsail; estimated value ₹150. No cargo on board. No loss of life. (It was reported that the rudder chain of the schooner *Emanuel* parting, the accident could not have been avoided.)

198. The British Indian schooner ARAMVALARTHA AMMAY [of Tuticorin, 115 tons register, no official number], from Tuticorin to Colombo, with a cargo of chillies, onions, oil-cakes, &c. On the 15th July the schooner *Aramvalartha Ammay,* being laden with a full cargo, was lying at anchor in the Inner harbour of Tuticorin (Gulf of Manár), ready to proceed to sea; the weather was fine with a strong wind from the S.W.; at 3 P.M., whilst the schooner *Emanuel* was entering the Inner anchorage, she came into collision with the *Aramvalartha Ammay,* striking her on the starboard side, and carrying away 16 feet of the latter's bulwarks and rail, damaging the quarter boat and riggings; estimated value ₹250. No damage to the cargo. No loss of life. (The casualty was accidential, owing to the rudder chain of the *Emanuel* breaking.)

199. The American wooden barque EDINBURGH [of Quebec, 1,299 tons register, official number 85741], from Calcutta to New York, with a cargo of jute seeds. On the 15th July, the vessel was proceeding down the Hooghly river in charge of a pilot and in tow of the steamer *Sestos;* at 9-30 A.M., whilst the barque was turning round at Fisherman's point in order to come to an anchor, the pilot observed that the steamer *Sestos's* engines were not working properly, he consequently let go the barque's anchor before that vessel got fairly round, when in doing so, the chain ran out and parted at about 50 fathoms, losing the anchor; the *Queen Anne* wreck buoy bearing N. W. by N. ½ N., and the Upper Fulta mark E.½ S., in 7¼ fathoms of water. No damage to the steamer or cargo. Value of the anchor and chain lost by the *Edinburgh,* about ₹1,632; it was reported that they had not been recovered. No loss of life. (The casualty was accidental.)

200. The British iron screw steamer CLAN RANALD [of Glasgow, 1,338 tons register, official number 80439], from Pondicherry to Marseilles, *viâ* Point de Galle, with a cargo of ground nuts and gingelly seeds. At 6 A.M. on the 17th July the steamer, when 80 miles westward of Cape Comorin, in latitude 7° 49′ N., longitude 76° 01′ E., before proceeding through the Eight Degree channel (Indian ocean), met with an accident to her machinery, a blade of her four-bladed propeller having broken. The weather was stormy and overcast, and the sea was rough, with heavy swells from N.E., the wind was blowing a fresh gale from S.W. No damage to the steamer or cargo. Value of damage to the machinery not reported. No loss of life.

(*See Casualties Nos. 208 & 213.*)

201. The British iron screw steamer CLAYMORE [of London, 1,657 tons register, official number 87102], from Singapore to New York, with a cargo of tea. On the 18th July at about 6 A.M., when in latitude 3° 22′ N., longitude 90° 04′ E.

(Indian ocean); the steamer met with an accident to her machinery, two blades of the propeller having broken, caused by strong head winds from the S. W. No damage to the steamer or cargo. Value of damage to the machinery not reported. No loss of life.

202. The British iron screw steamer INCHRHONA [of Liverpool, 1,496 tons register, official number 84141], from Kurrachee to Port Said, with a general cargo. On the 19th July, the steamer *Inchrhona* was lying at her moorings in the Kurrachee harbour (Sind coast); at 8-45 A.M., on account of the crowded state of the harbour, the two vessels which were moored rather too close to each other, swinging in opposite directions, she fouled the steamer *Simla*. No damage to the *Inchrhona*. No loss of cargo. No loss of life. (The collision was unavoidable.)

203. The British iron screw steamer SIMLA [of Glasgow, 1,039 tons register, official number 80415], from Kurrachee to Bombay, with a general cargo. On the 19th July, the steamer *Simla* was lying at her moorings in the Kurrachee harbour (Sind coast) alongside the steamer *Inchrhona*. On account of the crowded state of the harbour, the two vessels were moored rather too close to each other, and whilst swinging in opposite directions, the *Simla* at 8-45 A.M. struck the *Inchrhona* and damaged her own poop rails, the estimated value of which was ₹50. No cargo lost. No loss of life. (The collision was unavoidable.)

204. The British iron screw steamer *Empress of India* [of Calcutta, 1,390 tons register, official number 49343], from Calcutta to Colombo, with a cargo of rice, &c. On the 19th July, the steamer, in charge of a pilot, was proceeding down the Hooghly river; at 5-15 A.M., whilst turning at Garden reach, a little below Messrs. Gladstone Wyllie's yard, with her head to the northward, during the last of the ebb-tide, the starboard engines were going half speed ahead and the port engines half speed astern, the vessel having twin screws, the leadsman giving $6\frac{3}{4}$ fathoms, the steamer touched the ground aft on the South or left bank of the river. The pilot immediately ordered both engines to go ahead, when the vessel got off, and was anchored. The master in the meantime had a general overhaul, and found that the rudder lifted a little, so that after the steamer anchored shears were rigged, when the rudder was lifted and lowered again. Also that a link or shackle of the port connecting chain from the wheel on the bridge to the steering gear aft had broken. After having repaired the slight damage on board in a few hours, the pilot, with the consent of the master, proceeded with the vessel to sea the same evening. The pilot said that judging from the slight shock felt, and which was only felt by the steering gear carrying away, the steamer could have had but very little sternway on at the time of the accident. No damage to the cargo. No loss of life. (The casualty was caused by an error of judgment on the part of the pilot, and that as no material damage or delay had been incurred, the pilot was only cautioned.)

205. The British iron screw steamer AFRICA [of Glasgow, 1,318 tons register, official number 68108], from Calcutta to Rangoon, Maulmain, and the Straits, with a general cargo. On the 23rd July the steamer, in charge of a pilot, proceeded down the Hooghly river; at 4-30 P.M., whilst turning round at the first quarter of the ebb-tide, she touched the northern bank at Garden reach with her heel, a little below Garden house point. The steamer had been going astern with the engines, and had a stern board on, when the pilot stopped and reversed the engines; subsequently the engines were moving ahead, but before she gathered headway, the steamer's heel touched the bank for about a few minutes as the vessel was dropping down. On the chief engineer having reported that the propeller was not damaged, the pilot, with the consent of the master, continued his course to sea. No damage to the steamer or cargo. No loss of life. (The casualty was accidental.)

206. The British iron screw steamer ABYSSINIA [of Glasgow, 713 tons register, official number 60356], from Bombay to Mozambique, with a general cargo. It appeared that the steamer was proceeding to Aden on a W. by S. course, when she met a fresh gale, with very high sea from the S.W., from the 20th to the 24th July; the weather was clear the whole time, but there was a very high sea running with a strong breeze from S.W.; the steamer was made snug, but notwithstanding the seas frequently broke on board; the vessel on the 23rd July, when in latitude 15° N., longitude 57° E. (Arabian sea), shipped tremendous seas thereby damaging the hull, after which on two occasions the steamer was headed on to the sea and engines reduced to speed sufficient for steerage way only. Value of damage to the steamer, R604; the cargo was damaged, but to what extent not reported. No loss of life.

207. The British iron screw steamer VESTA [of Liverpool, 1,995 tons register, official number 84117], from Calcutta to London, with a general cargo. On the 24th July the steamer, in pilotage charge, was proceeding down the Hooghly river; at 9 A.M. the pilot turned the vessel in Garden reach and went down slow to just above the Melancholy point, whence she proceeded at hall speed. The steamer had crossed over from Melancholy point to the opposite bank, and was going down Jarmaker's reach, a little to the westward of mid-channel, when the pilot felt the steamer take the ground, he immediately put the helm to starboard and telegraphed to go full speed ahead. The vessel swung round with her head to the westward, when the pilot stopped her and went full speed astern, but the steamer forged with her head to the westward further on to the sand, and before the pilot could get sternway on her, she swung round head up the river; she grounded on the Melancholy sands in 4 fathoms of water; the Jarmaker's Crossing mark bearing E. S.E., the red Nun buoy S. W. by W. ½ W., and the Melancholy point on with Hangman's point. At 11 A.M., when the tide rose, she backed off and proceeded down the river and anchored for the night at Diamond harbour. She was aground for 1½ hours. No damage to the steamer or cargo. No loss of life. (The locality was in consequence at once re-surveyed by the River Survey Department, and it was found that a new sand bank had formed, necessitating the removal of the buoy marking the shoal no less than 200 yards. Under these circumstances, the grounding was a misadventure, in no way due to any fault of the pilot, but to a sudden change in the channel, which was liable to take place at that season when the freshets were running strong.)

208. The British iron screw steamer CLAN RANALD [of Glasgow, 1,338 tons register, official number 80439], from Pondicherry to Marseilles, *viâ* Point de Galle, with a cargo of ground nuts and gingelly seed. At midnight of the 24th July the steamer, when about 80 miles to the S.E. of Sokotra island, in latitude 12° 01′ N., longitude 55°15 'E. (Arabian sea), met with an accident to her machinery, the second blade of her four-bladed propeller having broken. The weather was stormy and overcast, and the sea was rough, with heavy swell from N.E.; the wind was a moderate gale from the S.W. No damage to the *Clan Ranald* or her cargo. Value of damage to the machinery not reported. No loss of life.

209. The British iron screw steamer ATRATO [of Sunderland, 2,066 tons register, official number 87354], from Cardiff to Aden and Bombay, with a cargo of coals. On the 24th July, at about 1-30 A.M., the steamer, whilst entering the Aden harbour (South coast of Arabia), grounded in the Outer harbour, but came off again. At daylight, when proceeding to the Inner harbour and on swinging round to her mooring, she again touched the ground aft on soft mud. On the tide rising the steamer turned round and was ultimately moored, and after having discharged 700 tons of coals for that port, she sailed for Bombay on the 26th July. Value of damage to the steamer not reported. No loss of cargo. No loss of life. (The casualty was caused by the shallowness of the harbour.)

(For a further account of this vessel see Casualties No. 214.)

210. The British composite barque TONGOY [of Dublin, 484 tons register, official number 51114], from Madras to Calcutta, in stone ballast. On the 24th July the barque in charge of a pilot, and without steam, was proceeding up the Hooghly river; at 1 30 P.M. it was flood-tide, the wind being light from E.S.E., the vessel was working up the Ulabaria reach, without steam close-hauled on the starboard tack. The pilot put the helm down to go about, and when the wind got on the port bow, she hung, but her stern getting in an eddy, she immediately gathered sternway, and on perceiving she would not pay off, the pilot let go the port anchor to avoid going up the bank, but before the anchor could bring her up, her stern took the ground, whereupon she dragged the anchor and swung alongside the bank just below the mouth of the Sisbaria creek. The *Tongoy* after having been ashore for 50 hours was got off by the steam-tug *Columbus* at 3 P.M. on the 26th July. The pilot stated that the barque missed stays and grounded on the bank. She was subsequently examined by a diver belonging to the Port Commissioners, who reported that no injury whatever had been done to the vessel. Value of damage to the barque, ₹350. No cargo on board. No loss of life. (The casualty was accidental owing to the vessel missing stays. The pilot's report had not been signed by the master, who was asked to furnish any explanation of the fact that he declined to sign the report, whereupon he appeared at the Port Office in a state of inebriety and made a long rambling statement abusing the pilot, but no connected account could be extracted from him. Under the whole circumstances the Port Officer was not inclined to blame the pilot.)

211. The British Indian muchwa LAXMI [of Basseen, 5 tons register, official number 3247], from Bombay to Basseen, in ballast. At 6 P.M. on the 25th July the muchwa, whilst on her way from Bombay, sprung a leak and sank off Dongarsan hills (Bombay coast) in consequence of a heavy S.W. squall. She was afterwards recovered with little or no damage. No cargo on board. No loss of life.

212. The British iron screw steamer AFRICA [of Glasgow, 1,318 tons register, official number 68108], from Calcutta to Rangoon, Maulmain, and The Straits, with a general cargo. On the 25th July the steamer was lying at anchor at Fisherman's point, with the port anchor down, when at 8-30 A.M., owing to the strong ebb-tide, the chain parted at 15 fathoms, losing the anchor; Fisherman's point creek bearing N.E. $\frac{3}{4}$ N., Old Fulta point S. by W. $\frac{1}{4}$ W., and the *Queen Anne* wreck buoy South (true). These bearings, the pilot stated, were taken after the steamer had been brought up on the evening of the 24th. The pilot reported that the vessel had been lying at Fisherman's point all the night on the 24th July quite quietly without altering her position, notwithstanding that the flood-tide was much stronger than the ebb, yet the chain held throughout. Owing to the large link immediately above the shackle being defective it gave way. No damage to the steamer or cargo. Value of the anchor and chain lost by the *Africa,* about ₹910; it was reported that they had not been recovered. No loss of life. (The casualty was accidental.)

213. The British iron screw steamer CLAN RANALD [of Glasgow, 1,338 tons register, official number 80439], from Pondicherry to Marseilles, *vid* Point de Galle, with a cargo of ground nuts and gingelly seed. At 10 P.M., on the 26th July the steamer, when about 90 miles to the N.W. of Sokotra island, in latitude 13° 35′ N., longitude 52° 44′ E. (Arabian sea), met with an accident to her machinery owing to a strong gale from the S.W., in the course of which she lost the third blade of her four-bladed propeller. The weather was overcast with a strong gale from S.W., the sea being rough with heavy N.E. swells. The steamer put into Aden for repairs. Value of damage to the *Clan Ranald* and her cargo not known. Value of damage to the machinery not reported. No loss of life.

(*See Casualties No. 200 and 208.*)

214. The British iron screw steamer ATRATO [of Sunderland, 2,066 tons register, official number 87354], from Cardiff to Bombay, with a cargo of coals. It appeared that the steamer left Cardiff on the 25th June on a voyage to Bombay, with a full cargo of coals, *viâ* Suez canal. She entered the canal on the early morning of the 10th July, but after going some distance through it, she took the ground on her starboard bow at 7 A.M., and got off immediately. At 2-50 P.M., the tide catching the vessel, she touched the bank again on the port bow in the Lake Timsah. On the 11th, she grounded on the bank again, but backed off at once. She left Suez at 11-40 A.M. the same day *en route* for Suwákin, reaching that port on the afternoon of the 14th July. On the following morning, there being a strong breeze from the eastward, the steamer on arriving at the berth assigned to her, stern first, the propeller touched the edge of a coral bank. On the 18th having procured a diver, the master sent him down for the purpose of ascertaining if the propeller was damaged in any way by striking on the coral bank. After a careful examination, it was reported that there was about 6 inches broken off each blade of the propeller, but that the stern post, the rudder, the gudgeons, and the pintles were intact. The steamer discharged her cargo for that port and left on the 20th July for Aden. On the 24th, at about 1-30 A.M., the *Atrato* touched the ground in the Outer harbour of Aden. At daylight she entered the Inner harbour, and whilst swinging round to her mooring again touched the ground aft on soft mud. On the tide rising the vessel turned round, and was ultimately moored, and after having discharged 700 tons of coal she sailed from Aden, on the 26th July, for Bombay. After running for a distance of about 700 miles, the steamer then being in latitude 15° 05′ N., longitude 56° 45′ E., on the 29th July at noon, a tremendous racing of the engines took place. The engines were stopped, when it was found that the propeller had been carried away and was lost; the weather being boisterous, with heavy southerly sea, the master set all sail and proceeded on to Bombay, where she arrived on the night of the 4th August. The Engineer Surveyor to the Port of Bombay proceeded on board the S. S. *Atrato* on the afternoon of the 7th, for the purpose of ascertaining the extent of damage she had sustained to her machinery whilst on a voyage from the United Kingdom to Bombay. From a perusal of the ship's log-book and from the statement of the chief engineer of the vessel, it appeared that the steamer grounded three times in the Suez canal on the 10th July and arrived at Suwákin on the 15th, when the propeller fouled the coral reefs in the harbour, thereby causing a heavy strain on the machinery; also that on turning the engines in Aden harbour she grounded twice on the 24th; the master, whilst in Aden harbour, examined the propeller as well as he could, and found there was from 15 to 18 inches broken off each blade. The chief engineer stated that on the 29th July, at 11-40 A.M., the engines then running at 75 revolutions per minute, he being on watch, the engines raced away at a terrific speed at probably 300 revolutions per minute, causing the whole of the machinery to vibrate in a fearful manner. He stopped steam as soon as he possibly could, the engines running for some moments after steam had been shut off. The cylinders being of 39 and 78 inches diameter, with a stroke of 48 inches, the usual number of revolutions were 60 with vessel loaded. The Surveyor reported that he examined the whole of the machinery very carefully as far as it was practicable to do so, and with the exception of the metallic packing ring of the high-pressed piston which was broken into ten pieces, and the bolts of the piston which were defective, and the top brass of the forward crank pin, and other minor defects, the machinery appeared to have been in good order. The cause of the propeller having broken in the manner it had so lost at sea, was, in the Surveyor's opinion, due primarily to the propeller having struck the coral reefs at Suwákin and so got dangerously flawed. In order to further examine the defect, it was necessary to have the vessel

tipped, which was done after the remainder of the cargo was discharged. The Surveyor again proceeded on board the vessel on the 9th August, after she had been tipped, to examine the shaft and the spare propeller, which had been removed from the hold and were being fitted to the shaft, and the usual defect list sent to the master of the steamer. The Surveyor was of opinion that if the same was fitted and secured in a proper manner, the *Atrato* would be seaworthy and fully able to load and continue her voyage to the United Kingdom. On the 12th the steamer was finally examined, and the Surveyor reported that he found the spare propeller had been properly fitted in its place on the shaft, the gland packed, and the whole of the bolts fitted in the couplings, and that the remainder of the defects had also been made good; the boilers, as far as could be seen, were in good order. The Surveyor was therefore of opinion that the steamer was seaworthy, and able to load and continue her voyage to Europe. The cost of the repairs, &c., to the *Atrato* was not known as the master himself paid all expenses without reference to the Agents. No damage to the cargo. No loss of life. (The casualty was probably caused by the grounding previously.)

215. The British iron steamer SIR JOHN LAWRENCE [of Calcutta, 466 tons register, official number 52713], from Calcutta to Chándbali, with 213 passengers and a general cargo. On the early morning of the 30th July the steamer cast off from the buoy in the Hooghly river and steamed easy ahead on the flood-tide, when the master, on seeing a cargo boat ahead drifting up with the tide, hailed the boat's crew to pull ahead and starboard the helm, but the crew were quite indifferent, and did not make any efforts whatsoever to clear the steamer. At 5-20 A.M., on the steamer nearing the cargo boat, her master stopped the engines and reversed full speed, when the boat, whilst coming across the steamer's stem, came into collision with her off the Engine-house moorings. The master stated that the steamer had no room to go to starboard on account of the tug-steamer *Cyclone* being at swinging buoy No. 5, neither had she any space on the port side to cross the cargo boat's bow, as one of the Asiatic Steam Navigation Company's steamers was proceeding out of her moorings off Chándpal ghât. No damage to the steamer or cargo. No damage to the boat. No loss of life. (The master reported that the collision would not have occurred had the crew of the boat pulled their oars or starboarded the helm, for had they done so the boat would undoubtedly have cleared the steamer. After clearing the cargo boat, the crew would not render any assistance to get the boat ashore into shallow water.)

AUGUST.

216. The British iron screw steamer JAMES WATT [of Greenock, 1,024 tons register, official number 81810], from Maulmain to the Channel, with a cargo of teak timber. On the 2nd August the steamer, in charge of a pilot, was proceeding down the Salween or Maulmain river (Burma coast); at 10 A.M., it being flood-tide at the time, she started from her moorings, and the pilot proceeded with the steamer under easy speed, the current in the meantime running down at the rate of from 1 to 1½ knots an hour; she steered over to the westward, as was consistent with safety, with the view of turning her round on the port helm in the Mopoon Bight channel, the soundings given ranging at the time from 4 to 3½ fathoms. When the steamer was nearing the Sirocco buoy, the helm was placed hard-a-port, but she answering her helm very sluggishly, the soundings still continuing at 3½ fathoms, she brought up, but grounded on the Sirocco Lumps about a cable's length S.E. of the buoy. The pilot immediately left the upper bridge and went forward to ascertain the correct soundings, and found less than that given by the leadsman, and also less than the vessel's

draft, *viz.*, 18½ feet from amidships to right forward. He then rang the telegraph to go full speed as the water was rising fast, when, perceiving she was afloat, he turned her round and proceeded safely to sea. The weather was squally with drizzling rain; the steamer remained aground for half an hour. No damage to the steamer or cargo. No loss of life. (The Port Officer, Maulmain, in forwarding the case to the Commissioner of the Tenasserim Division, reported that from inquiries duly instituted by him it was found that the steamer *James Watt* touched the ground on the Sirocco Lumps when turning round in the Mopoon Bight channel to the eastward of the buoy marking the Sirocco rocks, and that the cause of this accident was owing to the pilot, in trying to turn in so narrow a channel, having misjudged his distance from the buoy. Beyond the master's report, there was no other evidence forthcoming, the steamer having proceeded on her voyage, and it was therefore impracticable to hold a Court of Inquiry, but recommended that the pilot be reprimanded and cautioned to be more careful for the future when turning vessels during the freshets, for in his (the Port Officer's) opinion the pilot erred in not proceeding up the river off Tavoyzoo, where the broader channel offered greater facilities for executing the manœuvre. Had that plan been adopted, it was probable the accident, although apparently slight, would have been avoided.)

The Commissioner of the Tenasserim Division observed that if it was impracticable to hold a Court of Inquiry for want of evidence, it was equally so to warn or reprimand the pilot.

217. The British iron ship BENGOLLYAN [formerly the *Noumea,* of London, 1,139 tons register, official number 44665], from Newcastle (Australia) to Tuticorin, with a cargo of coals. The master stated that at 12-30 P.M. on the 2nd August he made the land right ahead, and altered the course to steer along the land; at 5 P.M., the weather being fine and clear, with a moderate breeze from the westward, the ship gently touched the ground, 23 miles South of the port of Tuticorin, on the foul ground which extends for 2 miles off Manápaud point; the Trichendore pagoda bearing N.N.E., distant 8 miles, and the Manápaud church W. by S.½ S., distant 2 miles (Gulf of Manár). Immediately after touching, the lead was hove, and it was ascertained that there were 19 feet all round the ship. The master put the yards aback, but with no result, and after several attempts she eventually came off, without having received any serious damage. On the 10th and 14th August the *Bengollyan* was examined afloat by Surveyors, whilst lying in Tuticorin harbour, for the purpose of ascertaining whether the vessel had received any damage in consequence of her stranding on the foul ground off Manápaud when proceeding on a voyage to Tuticorin with a full cargo of coals. After carefully inspecting the ship, the Surveyors reported that to the best of their knowledge and belief the vessel was sound and in a seaworthy condition. Taking the European diver's statement or report as a guide in so far as the bottom outside was concerned, they found that on the starboard side on the line of the break of the forecastle and between three and four plates from the keel there was a graze or rubbing off of the paint of some 4 feet in length and 2 in width, but there were no signs of the plates being damaged. The Surveyors directing their attention more particularly to that part of the vessel made a thorough examination inside of the frames, and the cement, of the ship from the foremast forward, removing the ceiling for that purpose where required, and found the frames quite sound and the cement intact, and showed no signs of a crack even. They also examined the pumps and sounded the vessel at intervals of four hours, and found that she was not making any water. They further examined the rudder, the mast-coats, deck-butts outside and inside, and the cement on the water-ways, but did not discover any signs of the ship having strained or injured herself whilst aground. An European diver reported that he examined the vessel on the 10th August under water from stem to stern, taking

a hammer with him and testing the plates. He found a graze on the starboard side in a line with the forecastle head, and three to four plates up from the keel; the graze was 4 feet in length and 2 in width, but showed no signs of the plates being damaged—a rubbing off of the paint being all that indicated that she had touched the ground. The diver discovered no other signs of damage. He further examined the keel, the forefoot, and the stern post, but found them sound and in good order. No loss of cargo. No loss of life. (It was reported that the master appeared to have been hugging the coast too closely, with a light breeze blowing off the land, and the lead not being kept constantly going.)

218. The British iron ship MAIRI BHAN [of London, 1,315 tons register, official number 68537], from Melbourne to Calcutta with horses. On the 1st August the ship, in charge of a pilot and in tow of the tug-steamer *Hunsdon,* was proceeding up the Hooghly river, and when at Kedgeree, she anchored for the night. The pilot stated that the next morning, after taking the ship in tow, he got the *Mairi Bhan's* anchor up and desired the master of the tug to go round as soon as he was ready. It was the last quarter of the flood-tide, and the wind was a light breeze from S.S.E. At 6 A.M. the master of the tug, instead of getting his anchor off the ground and then going ahead, ported the helm and went half speed, thus giving the *Mairi Bhan* an impetus, and the *Hunsdon* not being able to get out of the *Mairi Bhan's* way in time, owing to his anchor holding, caused the latter vessel to come into collision with the tug. The master of the ship stated that his helm was put hard-a-starboard to try to avoid the collision, but unsuccessfully, for the *Mairi Bhan's* starboard head gear fouled the *Hunsdon's* port quarter boat and the former vessel's jibboom took the tug's foretopmast out. The master of the *Mairi Bhan* was positive that the hull did not come in contact. After the accident, when the *Hunsdon* went ahead, the starboard hawser fouled the *Mairi Bhan's* starboard anchor, which was close up to the hawse-pipe, and caused it to strike the latter vessel's bow with great force, making a dent of 3 inches in size in the plating about 2 feet above the water. The damage to the *Mairi Bhan* was not serious; the vessel was repaired at a cost of ₹58. The *Mairi Bhan* was subsequently safely brought up to town, where at 6-40 P.M. she was anchored at No. 8 Calcutta moorings alongside the jetty. No damage to the cargo. No loss of life. (The collision was accidental.)

[As this was the first case that had come to notice of failure to comply with the injunctions contained in Rule 13 of the Rules for the guidance of Running Pilots, the Lieutenant-Governor of Bengal was of opinion that a strong reprimand would be sufficient. The Lieutenant-Governor remarked that in reprimanding both the pilots concerned, a circular should be issued to all pilots, warning them that every future case of concealment of the kind brought to notice would be most severely dealt with.]

219. The British iron paddle steamer HUNSDON [of Calcutta, 440 tons register, official number 49328] was employed as a tug-steamer on the Hooghly river. The master (a licensed steam-tug pilot) stated that at daylight on the morning of the 2nd August when off Mud point the tug steamed ahead of the *Mairi Bhan,* dropped the anchor, passed both hawsers from the steamer, when the ship hove up her anchor, having got up steam much quicker than he could; the flood-tide was only just in and weak, a puff of wind came on, the *Mairi Bhan* being light in ballast and horses, was set ahead of the *Hunsdon.* The ship put her helm to starboard, but being to the windward of the tug, she dropped upon the latter vessel, and in going astern the *Mairi Bhan's* jibboom end came into collision with the *Hunsdon's* topmast backstay, and thus carried away the topmast, the port quarter boat, bent davits, &c. The steamer upon turning after the anchor was up had to slack her port hawser to get round, when it got

under the *Mairi Bhan's* anchor which was hanging at the hawse-pipe in straightening up. The tug's pilot found that it pulled the anchor out, when he eased back the steamer as easy as possible and the hawser clearing itself, the anchor came back against the *Mairi Bhan's* bow with great force, thus causing a dent. Value of damage to the *Hunsdon,* ₹150. No loss of life. (The tug pilot reported that it was a common occurrence with steamers to cause a collision when taking a vessel in tow; the ship ranges ahead, although not to do any damage. The Agents of the tug reported that in this instance the collision was attributable to the hawsers not being triced up, or to the anchor of the *Mairi Bhan* not being catted before turning; and as these were matters which should have been attended to on board the ship, the *Hunsdon* consequently could not be held responsible for any damage that occurred through their having been neglected.)

220. The African iron screw steamer SWORDSMAN [of Zanzibar, 720 tons register, no official number, belonging to His Highness the Sultan of Zanzibar], from Calcutta to Zanzibar, with a cargo of rice. On the 4th August the steamer in charge of a pilot was proceeding down the Hooghly river; at 6-40 A.M. the pilot stated that the steamer was going down full speed, and when just below the Sankral bazar, two Native boats pulled out across her bows, the pilot put the helm hard-a-port and slowed, and then stopped the engines in order to clear them, but before the steamer answered her helm sufficiently, the *Swordsman* came into collision with one of them. The boat immediately sunk, there being three men in it, two of whom, who were pulling the oars, jumped into the other boat, and the man who was steering was thrown into the water. The pilot of the *Swordsman* threw lines to him, however, and picked him up unhurt; he was subsequently landed and sent to the Magistrate at Diamond harbour. The pilot stated that the Native boats could easily have remained out of the steamer's way by keeping along inshore as they previously were going until just before the vessel got to them, when they deliberately pulled across the steamer's bows. No damage to the *Swordsman.* Value of boat not reported. No loss of cargo. No loss of life. (The collision was caused by the carelessness of the crew of the boat.)

221. The British iron screw steamer BEDOUIN [of Liverpool, 1,276 tons register, official number 81276], from Bombay to Havre, with a general cargo. On the 5th August the steamer, when about 600 miles from Aden, in latitude 15° 36′ N., longitude 55° 22′ E. (Arabian sea), weather hazy with a moderate breeze from the S.W., the sea being rough; at 5-10 P.M. the steamer was steering on a W. by S. course, the master found that the fore-crank-shaft had broken, and after fitting a spare one, put into Aden, whence, after coaling, she proceeded for Havre. Damage to the steamer and cargo not known. Value of damage to the machinery not reported. No loss of life.

222. The British iron ship CAESAREA [of London, 1,257 tons register, official number 76959], from New York to Calcutta, with a cargo of kerosine oil. On the 8th August the ship, in charge of a pilot and in tow of the steam-tug *Sind,* proceeded up the Hooghly river, and when at Garden reach on the following day, was boarded by an assistant harbour master. At about 6 P.M. on that day the assistant harbour master got to the outer ebb buoy, off No. 1 Garden reach moorings, for the purpose of mooring the vessel, and with that view he shackled on a chain to the same and at once sent out two new 6½-inch coir lines aft. The tide being ebb after about 4-30 P.M., the assistant harbour master, after heaving the after lines tight, sent out the forward inshore chain, but finding that the ship was not far enough astern, he hove farther astern and slacked the head chains sufficiently, so as to moor the vessel in the right position. At 6-45 P.M. the stern line, which was fast to the outer buoy, slipped off the bitts through some unknown cause, the line being very stiff, the *Caesarea* sheered to starboard, notwithstanding the wheel was over to starboard, and the

tide caught the vessel on the port bow, and before the assistant harbour master could get the stern line hove tight again, she took the ground forward a little outside the ebb buoy at No. 1 Garden reach moorings, although the *Caesarea* was between the outer buoys at the time of the stern line slipping. The Assistant harbour master tried to heave her off, but finding that she would not move, he instantly secured her with inshore chains, and wire breast fast to large trees on shore and set them all up as tight as possible. The assistant harbour master kept continually sounding fore and aft on both sides, and found that the vessel was lying on an even bed, there being at low water 12 feet forward increasing to 15 feet aft inshore side; outside the ship was water-borne, there being 4 fathoms. At midnight she floated off without assistance after having been aground 5½ hours and was safely moored. The harbour master said that the occurrence was purely accidental, and was the first case of its kind that happened within his recollection during his term of service. The *Caesarea,* after discharging her cargo, was subsequently put into Dry dock at Howrah for examination and repairs. The Surveyor reported that on the morning of the 20th October he proceeded to the Commercial Dry dock at Howrah at the recommendation of the Surveyor on account of having, on the 9th August, whilst going into moorings at Garden reach, taken the ground on the east bank of the river with a falling tide and was aground for a little over five hours, during which time she took a very heavy list off shore, throwing great strain on her starboard bilge, she being loaded with a full cargo of kerosine oil. After a careful survey of the bottom, the Surveyor found that the paint off the bottom on the starboard side was badly scored and chafed as if the vessel had rested on stones or some other hard substance; a butt a little abaft the foremast showed signs of straining, and that from the foremast forward the paint and the plates were badly chafed, apparently by the chain cable, as if it had got under the keel. On the port side several butts of the bottom from the fore-rigging aft to nearly half way below the foremast and the mainmast, appeared to be weeping. The Surveyor recommended that the paint off the bottom be chiselled or scraped off to the bare iron for the examination of the rivets and butts, and that all the loose ceiling of the floors be lifted for examination of the cement inside; that the rudder be lifted, and a steel disk put into the socket at foot to ease the rudder off the gudgeons where it was resting rather heavily, and that the bottom be again coated with three good coats of paint and a coat of tallow. Whilst the *Caesarea* was aground a 10 inch Manila hawser, used for making the ship fast to trees on shore, was badly chafed and rendered unfit to be trusted again, should be condemned and sold for the benefit of the concerned, and a new hawser supplied to the vessel in lieu of the damaged one. Value of damage to the *Caesarea,* ₹3,625. No damage to the cargo. No loss of life.

(The Vice-Chairman of the Port Commissioners observed that the mooring should be laid farther out, as the assistant harbour master reported that the *Caesarea* was outside the inner buoy when she grounded. The harbour master replied that the mooring chain was all right, and that the inner buoy mentioned were two screw piles connected into a mooring for inshore chain, which instead of being sunk behind the bank as other moorings in Garden reach, it was screwed down in front of the bank for inshore mooring chain, and that vessels never came near that buoy, except in the present instance, which was the first one on record.)

223. The British iron screw steamer CITY OF OXFORD [of Glasgow, 2,573 tons register, official number 86679], from Calcutta to London, with a general cargo. On the 13th August the steamer in charge of a pilot was proceeding down the Hooghly river; at 12-45 P.M., whilst 200 yards below Pir Serang's tomb, in about mid-channel, she slightly touched the ground, but did not stop. The pilot stated that just as the vessel was nearly stopping, she fortunately cleared the obstruction and proceeded on again. It was low-water at the time

and the least water given by the leadsman was 25 feet. No damage to the steamer or cargo. No loss of life. (The casualty was accidental.)

224. The American wooden ship MONARCH [of Halifax, Nova Scotia, 1,187 tons register, official number 75081], from New York to Calcutta, with a cargo of kerosine oil and piece-goods. On the 13th August the ship, in charge of a pilot and in tow of the steam-tug *Retriever,* was proceeding up the Hooghly river. The pilot stated that on approaching the port the master of the tug informed him that he had to cast off the ship *Cleomene* on the 7th August, because there were no moorings vacant for oil ships, so the pilot accordingly decided to turn the *Monarch* off the port boundaries in order to place her clear of all traffic. Just before turning, the vessel was close to the northern bank, the usual distance being kept to clear the flat; on putting the helm slightly against the steamer to assist in turning her, the *Monarch* shoaled quickly, and getting near the ground she refused to answer the port helm which was given her immediately, and at 5-15 P.M. she grounded on the flat about half a mile above the Northern Boundary pillar and stuck fast in the mud. The pilot stated that the vessel would have then come off, but the steamer's hawser fouled her starboard screw, and the *Monarch* was thus rendered helpless. If the pilot was in error of judgment as regards the distance from the bank when he gave the order to turn, that must be imputed to his not being quite sensible at the time, having only a few minutes before been struck by the steamer's starboard hawser in the small of the back, and was suffering intense pain. An assistant harbour master came on board in the evening shortly after the vessel grounded. On the 14th morning the weather began with a light S.W. wind and rain; the tug *Retriever* made an attempt at high-water to pull the ship off, but failed, and it was decided that it would be necessary to lighten the vessel so as to enable her to be moved, and for that purpose the master proceeded up to town to procure cargo boats. In the afternoon, lighters came alongside to take cargo, and the vessel discharged 2,661 cases of oil, working day and night. The crew then got the starboard anchor out astern with the help of the Port Commissioners' Heave-up boat, and hove a strain upon it, but could not move the ship. The steamer *Retriever*, whilst turning, carried away the *Monarch's* bobstay band on the bowsprit, and when towing astern also carried away her bitts aft; the pumps were carefully attended to, but the vessel was found to be making no water. On the 15th there was heavy rain with a S.W. wind; the crew continued unloading the cargo, and discharged about 4,968 cases of oil. At high-water on that afternoon endeavours were made to tow her off by the tug taking a wire hawser to the windlass and heaving on it, but to no avail; the latter part of the evening was clear and fine. On the following day there being light showery weather lighters came alongside, taking cargo, working day and night. It being fine clear weather on the 17th, the steamer *Hetty,* belonging to the Port Commissioners, was engaged and made fast to the ship, and after a total amount of 11,517 cases of oil was discharged, the *Monarch* was eventually towed off the bank at highwater until she floated. The *Hetty* then towed her up to No. 2 Garden reach moorings, where she let go her anchor off the buoy in consequence of there being too much tide to moor. The next morning the assistant harbour master hove up the anchor, and safely put the *Monarch* into moorings. The ship was lying in an even bed of soft mud, and was reported to have made no water. She was aground for five days. On the morning of the 1st October, the Surveyors proceeded on board the ship *Monarch,* lying at No. 4 Hastings' moorings, in order to make an examination of that vessel, her cargo being all discharged, and to ascertain whether she had received any damage by her recent grounding at Garden reach. After a most careful survey of the vessel afloat, the Surveyors reported that the ship arrived at Garden reach with a cargo of kerosine oil and cotton goods from New York, took the ground on the west side of the river at about 6 P.M. on the 13th

August, and lay aground until the morning of the 17th, during which time a portion of her cargo was discharged to lighten the vessel. Her position whilst on shore seemed to have been very easy, being almost on even keel with a slight list to starboard; at low-water neap tides she had 11 feet water forward and 14 feet aft, and from the soundings taken at that time by one of the Surveyors personally, she sat about 2 feet in the mud. With the exception of a very slight rise at the after part of the main rigging on the starboard side, her sheer appeared to have been unaltered. This rise in the sheer was closely observed both whilst she was on shore and after she had floated, and no alteration whatever was seen; the rise was so slight as to have been scarcely observable. Having carefully examined the scarphs of the water-ways, the rails, and the butts of the deck planking in that part, and found no indication of movement either when on shore or after she had floated, the Surveyors were inclined to accept the master's statement that the rise was originally in the ship, and that the sheer of the vessel had not been affected by the grounding. The metal sheathing was somewhat wrinkled fore and aft on both sides, but such wrinkling of the metal was common in wooden vessels of her build, and should not be taken as an indication of straining whilst on shore. They examined the rudder, and steering gear, the waterways and the seams all round the hatch combings, and the combings of the deck houses, and the mast coats. They also examined the beams and beam clamps inside the iron and wooden knees, and riders, and their fastenings and the keelsons so far as they could see them, and found no indication of straining by the grounding. On perusal of the ship's log-book, the Surveyors found no entry of the vessel having made water; the master and officers stated that she made no water whilst on shore, or after she floated, or up to the time of her being surveyed. Having thus made a very minute examination of the vessel, so far as could be made afloat, and strict inquiry from the master and officers on board, the Surveyors found no tangible reason for recommending that the vessel should be put into dry dock, but advised that the Port Commissioners' divers be engaged to examine the bottom under water, and a report signed by the harbour master obtained. Should such report, when submitted, be favourable to the ship, the Surveyors would conclude from it, and from what they had themselves seen of the vessel, that she had taken no hurt whatever by the grounding, and having been docked, caulked, and remetalled in New York in March 1884, the Surveyors were of opinion that she was still strong, staunch, and seaworthy, and fit to carry a dry and perishable cargo to any part of the globe and a good insurance risk. Value of damage to the *Monarch*, ₹1,098; cargo, ₹2,362. No loss of life. (The accident was due to an error of judgment on the part of the pilot in going too close to the river bank. As he had to turn, it was right to have gone as near as he could to the bank before commencing to turn. The pilot was warned to be more careful in future.)

225. The British iron screw steamer VICEROY [of London, 1,570 tons register, official number 65613], from Bombay to Hull, with a general cargo. On the 15th August, when 50 miles to the S.W. of Aden, in latitude 12° 28′ N., longitude 44° 14′ E. (Gulf of Aden), the vessel was steering on a W. ½ S. course; the weather was fine and clear with a gentle breeze from S.S.E., and there was a moderate sea setting to the westward. At 10 P. M. the engineer reported that the circulating donkey wheel was stripped, whereupon the master turned the vessel round and put back to Aden for repairs using the common jet. The vessel after having undergone the necessary repairs, proceeded on her voyage to Hull on the 18th August. No damage to the steamer or cargo. Value of damage to the machinery not reported. No loss of life.

226. The British Indian craft SALAMATI [of Bombay, 6 tons register, official number 593, age about 45 years], from Adá to Bombay, in ballast. The craft was leaving the Port of Adá on the 16th August, when at 6-30 A.M., in conse-

quence of a strong gust of southerly wind, she was driven on a sand bank at the entrance to the Adá creek, Bombay harbour. She was afterwards recovered, and sustained damage to the amount of ₹150. The crew, 7 men, and 9 passengers were saved in the canoe belonging to the craft.

227. The British wooden brigantine AUBREY PEAKE [of Liverpool, 262 tons register, official number 71436], from Port Natal to Calcutta, with sand ballast. On the 18th August the brigantine was proceeding up the Hooghly river in charge of a pilot and without steam. At 9-10 A.M. whilst getting underweigh she could not get her anchor, and it was feared that it had either hooked something or was buried owing to the strong tides, consequently the pilot had to slip the anchor with 15 fathoms of chain close to the edge of the sand, just below Melancholy point, lest the vessel might get on shore; Sankral reach was barely open and she was about abreast of the second stack of bricks on Melancholy point. No damage to the brigantine. No cargo on board. The value of the anchor and chain lost by the *Aubrey Peake,* about ₹573. The Agents reported that the vessel was subsequently, before proceeding from Calcutta, supplied with a new anchor and chain in lieu of the lost articles, which had not been recovered; the cost of purchasing the new articles was unknown. No loss of life. (The casualty was unavoidable.)

228. The British iron screw steamer MIRA [of Liverpool, 1,669 tons register, official number 70966], from Calcutta to London, *vid* Colombo, with a general cargo. On the 18th August the steamer was proceeding down the Hooghly river in charge of a pilot, and whilst half way between the Lower Western Auckland and the Upper Eastern Eden buoys, with the Centre Auckland buoy on with the Kedgeree trees, the vessel slightly touched the ground for a few seconds in the Auckland channel at 12-40 A.M. It was the last quarter of the ebb-tide, and 8 feet was showing at Kedgeree, the leadsman got two casts of the lead of 23½ feet, whereas the steamer's draft was 22 feet 9 inches. The pilot stated that the least water reported in the Auckland channel was 17 feet, and with 8 feet at Kedgeree he calculated on having at least 24 feet, *i.e.,* 15 inches more than was the steamer's draft. No damage to the steamer or cargo. No loss of life. (The casualty was slight; it was caused by the change in the channels.)

229. The British iron ship GLENLUI [of Liverpool, 1,847 tons register, official number 87944], from Calcutta to Liverpool, with a general cargo. On the 18th August the ship, in pilotage charge and in tow of the steamer *Clive,* was proceeding down the Hooghly river. At 6-55 A.M., on arriving at Melancholy point during the last quarter of the ebb-tide, the pilot sighted the inward bound brigantine *Aubrey Peake* at anchor in mid-channel amongst the eddies. The *Glenlui* was going at half speed at the time, and when not far from the brigantine he noticed her sheer towards the *Glenlui;* the tug increased her speed and starboarded whilst the ship followed doing the same, when some of the *Glenlui's* lower yards on the starboard side fouled the brigantine's starboard braces; this manœuvre, to clear the *Aubrey Peake,* then threw the *Glenlui* across the channel in the midst of the eddies, thus rendering her unmanageable. The tug managed to get pointed head down the river at right angles to the *Glenlui,* though the steamer's engines were put to dead slow, when a strain came upon the hawsers and both parted outside the towing chocks on board the steamer *Clive,* but checked the *Glenlui's* way sufficiently to enable her to use the port anchor and veer to 15 fathoms. This prevented the ship going on the bank, and she remained in the slack to the northward of Jarmaker's crossing mark head up the river, touching the bank for about a quarter of an hour with her starboard bilge; the leadsman gave 22 feet abreast of the main rigging, and everywhere else 24 feet. At 8 A.M. the flood-tide came in and the *Glenlui* swung to her anchor, when the *Clive* took her in tow again, and a little before 9 A.M. proceeded fairly underweigh. No

damage to the *Glenlui*. No loss of cargo. No loss of life. (The casualty was accidental.)

230. The British wooden brigantine AUBREY PEAKE [of Liverpool, 262 tons register, official number 71436], from Port Natal to Calcutta, with sand ballast. On the 17th August the brigantine was proceeding up the Hooghly river in charge of a pilot and without steam. The pilot stated that she weighed from abreast of Pir Serang's shrine when the flood-tide made and dropped up the river. At high-water she anchored just below Melancholy point in 6½ fathoms of water, with the Sankral reach barely open, well on the edge of the Melancholy sand, the pilot knowing that she would ride a fair tide there clear of eddies, being in slack water, and therefore leaving a good channel for vessels. On the 18th, during the last quarter of the ebb-tide, the pilot observed the ship *Glenlui* in tow of the steam-tug *Clive* proceeding down the river. As she approached the *Aubrey Peake,* the pilot of the latter vessel let the chain run, the helm at the time being hard-a-starboard, but the brigantine would not take her chain, being in slack water. At 7 A.M. the *Glenlui,* whose yards were square, in passing carried away the *Aubrey Peake's* starboard foretopsail lift, but did no other damage, the latter vessel's yard was at the time braced up on the port tack. The pilot of the brigantine stated that he did not obstruct the navigation of the channel, as the ships *W. H. Corsar* in tow of the *Retriever,* the *Cartvale* in tow of the tug *Challenge,* and the Star Line steamer *Mira* passed shortly afterwards, all well to the eastward with plenty of room, so that, in the opinion of the pilot, a good channel was left. The Surveyors proceeded on board the brigantine *Aubrey Peake* on the morning of the 25th August, in order to survey and report on her fitness to carry a cargo from Calcutta to Natal, she having touched the bar slightly when leaving Natal, and subsequently, when on her way up the Hooghly river, whilst lying at anchor at Melancholy point, was fouled by the ship *Glenlui* proceeding down under steam, and had her foretopsail lift carried away; also when getting underweigh at Melancholy point to proceed up to town (Calcutta), was obliged to slip an anchor and 15 fathoms chain cable. After as careful an examination as could be made afloat, the Surveyors reported that they could detect no damage to the hull by touching the ground at Natal, but recommended that the Port Commissioners' divers should be sent down to examine the bottom under water, which was done; the divers stated that the bottom was not damaged. The *Aubrey Peake* was built of wood in Prince Edward's Island (America) in 1874, and originally classed A.I. in Lloyd's register for nine years, and continued for six years from November 1883. She was docked, caulked throughout, remetalled, and had undergone other repairs in February 1884 at Goole in the River Humber (England); when she was surveyed by Lloyd's Surveyor she had one deck, and hold beams. Her beams were well fastened with wooden lodging knees and iron riders. On examining her decks after a heavy rain, the Surveyors saw no leaks except in two butts of the deck plank, which had since been caulked; the waterway seams had also been caulked prior to the survey being made; her metal was somewhat wrinkled on both sides, specially under the main rigging, which the master of the vessel stated occurred when she came off the blocks after being remetalled in February 1884. The master also stated that the vessel was perfectly tight, and on perusal of the ship's log-book, the Surveyors could find no mention of her having made any water at sea. The Surveyors, from the above-mentioned examination and perusal of the log-book and the master's assurance that she made no water before and after her accident in the Hooghly river, were of opinion that the *Aubrey Peake* was tight, staunch, and strong, and fit to carry a dry and perishable cargo to any part of the globe. They, however, advised that the anchor and 15 fathoms chain lost at Melancholy point be replaced before proceeding on her voyage. The vessel was supplied with a new anchor and 15 fathoms of chain cable, and the foretopsail lift, which had been carried away,

was replaced. Value of damage to the *Aubrey Peake,* about ₨s 800. No cargo on board. No loss of life. (The collision was unavoidable.)

231. The British iron ship GLENLUI [of Liverpool, 1,847 tons register, official number 87944], from Calcutta to Liverpool, with a general cargo. On the 19th August, the ship, in charge of a pilot and in tow of the tug steamer *Clive,* was proceeding down the Hooghly river. The pilot stated that at 1-40 P.M. he anchored at Diamond harbour, and the position he had taken up was a proper one. At 4-10 P.M., the chain parted outside the hawse-pipe at 50 fathoms, owing to a defective link, losing the anchor; the Magistrate's house a little open with the mooring buoy, and the Custom house bearing N.W., in 10 fathoms of water. No damage to the ship or cargo. Cost of recovering the anchor and chain, ₨543. No loss of life.

232. The British Indian schooner MUTHOOLETCHIMY [of Jaffna, 24 tons register, official number 61196], from Karikal to Batticaloa, with a cargo of rice. On the 20th August the schooner was lying at anchor in Negapatam roadstead in 4 fathoms of water (Coromandel coast), when at 5 P.M. she was run into by the dhoney *Madavinpurovy,* owing to the carelessness of the tindal of the latter vessel. The tindal of the schooner paid out 10 fathoms of cable, but it proved of no avail to avoid the collision. Value of damage to the *Muthooletchimy,* ₨160. The damage to the dhoney was not reported. No loss of cargo. No loss of life.

233. The British Indian craft SÁKHARI SÁLLÁMATI [of Bánkot, 11 tons register, official number 4634], from Harnai to Anjarla, in ballast. On the 21st August the craft met with boisterous weather when near Siri bandar (Bombay coast); at 2 P.M. the tindal fell overboard and was drowned; the crew were unable to control her; subsequently she became unmanageable, and was drifted on the rocks off Siri bandar. She was afterwards recovered and repaired; estimated value of damage ₨200. No cargo on board. The crew 7 men; one life lost; the remainder safely got upon the rock, whence they were carried to shore.

234. The British iron screw steamer CHINDWARA [of Glasgow, 1,487 tons register, official number 80442], from Calcutta to Bombay, *vid* coast ports, with a general cargo. On the 23rd August the steamer, in charge of a pilot, was proceeding down the Hooghly river. At 4 P.M., just before deepening across the Gut, James and Mary's, the pilot put the helm hard-a-starboard for the purpose of hauling into the Hooghly bight, but her head being in the slack, and a strong ebb-tide on her starboard quarter, she did not answer her helm quick enough, whereupon the pilot ordered the engines to be turned full speed astern and let go the starboard bower anchor, but the steamer to just touch the bank at Túmluk or Gewankhali point, midway between the Fairway and the new No. 2 mark. The vessel did not stop at all; the pilot hove the anchor up and proceeded to Diamond harbour, where she anchored at 5-10 P.M. for the night. No damage to the steamer or cargo. No loss of life. (The casualty was accidental.)

235. The British iron screw steamer ROUMANIA [of Glasgow, 2,207 tons register, official number 84291], from Calcutta to London, with a general cargo. On the 24th August the steamer was proceeding down the Hooghly river in charge of a pilot. At 10-54 A.M., whilst going down Jarmaker's reach, the pilot observed a buoy right ahead of the steamer and almost in mid-channel, and after examining it for some time with a glass he and his leadsman agreed that it looked like a red buoy, but they were not certain, as there was such a strong tide running at the time that the water was flowing over the top of the buoy. The steamer's helm was accordingly put to starboard and the buoy brought about a point on the starboard bow. Almost immediately after this, and whilst still some little distance above the buoy, he observed the steamer to roll slightly from one side to the other; the pilot gave the order hard-a-port, but it was too late, as she

took the ground forward on the Kaffry sands about 70 to 80 yards to the eastward of the black Nun buoy off the point. The vessel immediately swung round with her head to the eastward and laid across the tide with a very heavy list, it being the last quarter of the ebb-tide; the engines were stopped and the vessel remained in that position. The soundings got showed $3\frac{3}{4}$ fathoms amidships and 5 fathoms at the stern. On the flood-tide making at 11-35 A.M., she floated off after having been aground for 40 minutes. No damage to the steamer or cargo. No loss of life.

[A Departmental Committee of Inquiry was held at the Port Office, Calcutta, on the 3rd September, to inquire into the cause which led to the grounding of the S.S. *Roumania* on an extension of the Kaffry sands in the Hooghly river. The Committee were of opinion that the grounding of the above steamer was caused by neglect on the part of the pilot, inasmuch that he did not read Memorandum No. 14, dated the 22nd August, entered in the channel order book. If the pilot's health permitted him to take pilotage charge of the vessel and join her at the jetty on the day in question (24th August), there was nothing to prevent his calling on the same day at the Port Office to read the channel order book.]

The Port Officer recorded that the *Roumania* took a dangerously heavy roll, but most fortunately righted and sustained no damage, and after being aground 40 minutes floated on the rising tide and proceeded on her voyage; happily, too, it was near the end of the ebb-tide. A Departmental Committee of Inquiry was held, as it was deemed necessary, but as the vessel had gone to sea, the only witnesses were the pilot and the leadsman. In the Committee's finding the Port Officer fully concurred, and placed the pilot under suspension pending reference, and he had been detained in town since the 29th August. This fact was mentioned in order that the Government might be pleased to weigh the circumstance in ordering any penalty. The facts of the case were simple. On the 20th August, after a re-survey of the locality, the River Survey Department issued a notice, No. 13, which was duly promulgated to the service in the usual way, the channel order book stating that the Kaffry sand—a shoal projecting from the left hand or eastern side of the river (going down)—had extended; that vessels were to avoid going to the eastward, and that a black buoy would be forthwith laid. Two days afterwards a notice was further issued, No. 14, to inform pilots that the black buoy had been duly laid. In chapter III, rule 4 of the Rules for the guidance of Running Pilots, it was laid down that pilots were daily, whilst in town, to inspect carefully the channel order book, &c. On the afternoon of the 23rd August, the pilot received an order to pilot the S.S. *Roumania,* a large steamer of heavy draft, to sea on the following day. He according to his own statement started in the usual way on the last quarter-ebb, and made this buoy which was carried nearly under water by the rush of tide. He then attempted, not having apparently realized that it was placed to mark the sandy shoal known to extend off, from the left bank, to pass inside or to the left of the buoy, and thereby grounded the vessel. The pilot admitted on the inquiry that he had not seen the order issued on the 22nd August, and put forward a plea of ill-health on that day, but the excuse was inadequate. As he admitted having seen the order of the 20th August, stating that a buoy would be laid at once, it was inconceivable how the pilot could have mistaken a new buoy in an, to him, unexpected position, and that position exactly where it was notified that a buoy was to have been laid at once, for anything except what it really was. To pass inside such a buoy would have been unpardonable even in the most junior pilot. The pilot had avowedly neglected to read the orders, and, of course, the water reports, for at least 36 hours before leaving, and started off down river with a vessel of the largest class without taking this ordinary and necessary precaution which was particularly required at the season of the year when the river was

constantly changing. The Port Officer considered the pilot to have committed a gross breach of duty and ordinary care, and recommended that he be placed on half earnings for six months. He would not suggest a trial, as there was no evidence to offer except the leadsman's.

The Lieutenant-Governor of Bengal accepted the finding of the Departmental Committee of Inquiry that the accident was due to the pilot's neglect to read the notice of the 22nd August in the channel order book. Had the pilot gone to the Port Office on that date, as he ought to have done, he would have seen the notice. The Lieutenant-Governor remarked that it was to be observed that the first notice of the 20th August, with its caution against "borrowing anything to the eastward," was quite sufficient to warn him of the danger if he had only paid intelligent attention to it. The case being then one of simple negligence for which no excuse or explanation was offered, the Lieutenant-Governor accepted the recommendation, and directed that the pilot be placed on half earnings for six months, with effect from the date on which he was suspended, *viz.*, the 29th August.

236. The British Indian schooner VIRGIN MARIA JOSEPH ST. ANNA [of Tuticorin, 82 tons register, no official number], from Colombo to Tuticorin with a cargo of betel-nuts, piece-goods and gunnies. On the 25th August the schooner was beating into the anchorage in the Inner harbour of Tuticorin, but missing stays, she grounded on the edge of the Seltive reef (Gulf of Manár). She subsequently came off without having received any damage. No loss of cargo. No loss of life. (The casualty might have been avoided had the tindal tacked before he got so very near to the reef.)

237. The British Indian hodi FALERI SAKHRI [of Alibág, 5 tons register, official number 246, age 44 years], from Alibág to Bombay, with a cargo of teak timbers. On the 26th August, whilst entering Bombay harbour, she met with a storm and grounded on a sand bank near the Alibág fort (Bombay coast). She was afterwards got off with very slight damage. Little or no damage to the cargo. No loss of life.

238. The British iron screw steamer CHANDA [of Glasgow, 1,305 tons register, official number 76759], from Bombay to Calcutta *vid* coast ports with a general cargo. On the 28th August the steamer, in charge of a pilot, was proceeding up the Hooghly river; the vessel was riding to the last of the flood-tide, and had hove into 15 fathoms to the water as the pilot did not wish her to swing that day, when she began to cant with her stem on to the western bank. At 5 A.M., whilst the steamer was getting underweigh from Pir Serang, the pilot put the helm hard-a-port and went slow ahead on the engines, thus bringing some strain on the chain which snapped, losing the anchor; the engines were stopped in 6½ fathoms of water, 300 yards from the bank, and about the same distance from the black Nun buoy on the edge of the Kaffry sands. No damage to the steamer or cargo. The value of the anchor and chain lost by the *Chanda,* about ₹800; it was reported that they had not been recovered. No loss of life. (The casualty was unavoidable.)

239. The Native ganja SOOGARPERSÁD [of Jodiya (Káthiáwár), 66 tons register, official number 4102], from Jodiya to Calicut, with a cargo of gram. On the 29th August the ganja was at anchor in the Málvan harbour (Bombay coast), a strong westerly wind was blowing all the time; at 7 A.M. the anchor cables snapped and the ganja was driven on to the beach. She was subsequently recovered with damage to the amount of ₹500; cargo worth ₹550 was lost and the remainder were damaged. No loss of life.

240. The British iron screw steamer AFRICA [of Glasgow, 1,318 tons register, official number 68108], from Rangoon to Calcutta, with a general cargo. On the 23rd August the steamer, in charge of a pilot, was proceeding up the Hooghly river full speed, steaming quite 11 knots; at 10 A.M. the vessel was

entering the Eastern Gut, James and Mary's, on the port helm between the *Waterloo* and the Muckraputi buoys, the No. 3. track marks being on, when he gave the order to steady the helm, which was done at once, the wheel on the bridge acting as usual; but finding the vessel's head still going rapidly to starboard, the pilot concluded that something had gone wrong with the steering engine, causing a disconnection with the steering gear, whilst the helm was to port. He thereupon stopped and reversed the engines to full speed astern, but before she gathered sternway the steamer took the flat off the Hooghly point during slack tide. She remained on shore quite gently for nearly five hours, when at 2-45 P.M. she floated off as the flood made. No damage to the steamer or cargo. No loss of life. (The casualty was accidental.)

241. The British iron ship BARON COLONSAY [of Greenock, 1,632 tons register, official number 72398], from Liverpool to Calcutta, with a cargo of salt. On the 30th August the ship was proceeding up the Hooghly river in pilotage charge and in tow of the steam-tug *Defiance*; and on the evening of that day she anchored below Fisherman's point as near as the pilot could judge in mid-channel in 7½ fathoms of water and a little above the Upper Fulta mark. The vessel on swinging to the ebb-tide her heel took what the pilot supposed must have been a lump, *viz.*; 20 feet, as a depth of 7½ fathoms was obtained in all other parts of the vessel. The pilot hailed the steamer and passed a hawser to him, and without any difficulty the *Baron Colonsay* floated after an hour and swung stern into the bank to the tide. At daylight the next morning the vessel's position was as follows:—the Fulta flat buoy nearly on with the Lower Fulta mark, and the Hog river obelisk just open of Fisherman's point. The *Defiance* shortly afterwards took her in tow, turned, and safely brought the vessel up to town (Calcutta). No damage to the ship or cargo. No loss of life. (The grounding was due to the pilot anchoring the barque too near the east side of the channel. He was warned.)

242. The American wooden ship JOSEPH [of Maitland, Nova Scotia, 1,542 tons register, official number 72618], from Southampton to Calcutta, with a cargo of coals. On the 29th August the ship was proceeding up the Hooghly river in pilotage charge and in tow of the steamer *Rattler*, and when at Saugor roads she anchored for the night. She was riding at anchor in 8 fathoms of water near the Apex buoy with 33 fathoms of chain to the water, with the Saugor light-house bearing E.S.E. At day dawn on the 30th the pilot discovered that the lower lip of the port hawse-pipe had fallen off during the night. There was no tide, and it being the sixth day of neaps there was much wind and no sea. The pilot stated that the hawse-pipe was probably defective, or it would not have fallen off with no strain, leaving the bolts in the timber heads which looked very old and worn. The ship was a soft wooden vessel, having been built at St. Johns, New Brunswick, about nine years ago. Value of damage to the ship not reported. No loss of cargo. No loss of life. (The casualty was attributed to the hawse-pipe being defective.)

243. The British iron barque PORT GORDON [of Glasgow, 1,098 tons register, official number 86732], from Calcutta to Australia, with a general cargo. On the 30th August the barque, in charge of a pilot and in tow of the steamer *Sestos*, was proceeding down the Hooghly river; at 5-45 A.M., whilst getting out of Saugor, the vessel sagged to leeward on the Middleton spit during a squall, and slightly touched on the edge of the sand a quarter of a mile above the Spit buoy. As the *Port Gordon* grounded almost imperceptibly, no danger was apprehended; and she making no water, the pilot immediately proceeded with her to sea. No damage to the barque or cargo. No loss of life. (The accident was caused by stress of weather.)

244. The Native ganja HURRI PUSSA [of Cutch Mándvi (Gujarát), 45 tons register, official number 9], from Calicut to Bombay, with a cargo of

cocoanuts. The ganja was anchored with both anchors down in Calicut roadstead (Malabár coast), when, on the 30th August, owing to the unusual character of the season, stormy weather having set in earlier than was expected; she parted from her anchors at 1 A.M. during the prevalence of a rough sea with strong winds, and, drifting ashore, heeled over on the beach 200 yards South of the old Custom house. The tindal stated that all available ground tackle was used, but that nothing could have been done to avoid the accident. When the ganja heeled over, the major portion of the cargo was swept overboard. Assistance having been rendered by the Marine Department, the ganja was subsequently floated. Value of damage to the ganja, ₹1,000; cargo ₹100. No loss of life. (It was reported that this casualty could have been avoided had the ganja been provided with better ground tackle.)

245. The Native battalla TRICUM PUSSA [of Bhúj, Cutch, 42 tons register, official number 1499], from Cutch Mándvi to Calicut, in ballast. The battalla was anchored with both anchors down in the Calicut roadstead (Malabár coast), when, on the 30th August, owing to the unusual character of the season, stormy weather having set in earlier than was expected; she parted from her anchors at 1 A.M. during the prevalence of a rough sea with strong winds, and, drifting ashore, heeled over on the beach 200 yards W.N.W. of the lighthouse. The tindal stated that all available ground tackle was used, but that nothing could have been done to avoid the accident. The battalla subsequently got off with the assistance afforded by the Marine Department. Value of damage to the battalla, ₹2,000. No cargo on board. No loss of life. (It was reported that this casualty could have been avoided had the battalla been provided with better ground tackle.)

SEPTEMBER.

246. The British iron ship BRITISH NATION [of Liverpool, 1,302 tons register, official number 51477], from Calcutta to Surinam and Demerara, with 473 Native emigrants and a cargo of rice. On the evening of the 1st September the ship, in charge of an assistant harbour master, was dropping down from No. 13 Garden reach moorings to Garden reach, Hooghly river, preparatory to proceeding to sea in charge of a pilot. At 6-40 P.M. the ship was caught in an eddy and became unmanageable, and while the assistant harbour master was endeavouring to get her clear, she hooked the moorings of No. 1 Garden reach moorings. He was lighting to chain all the time on the port cable, and dropped the other anchor in the hope of averting a collision, but the chain unfortunately jammed on the windlass and the *British Nation* came into collision with the ship *Monarch* lying at No. 2 Garden reach moorings. The assistant harbour master was employed nearly all the night in clearing her anchors, when at daylight he safely dropped the *British Nation* down to the reach with much difficulty owing to her being so much by the head, and to her steering very badly; she was immediately taken in tow by the steamer *Retriever* and proceeded down the river. The assistant harbour master stated that the reason why he dropped the ship to Garden reach from her moorings at such an hour was that because there was ample time to drop to the reach between 6 P.M. and dark. The harbour master said that the collision was caused by eddies, owing to which the *British Nation* became unmanageable; the officer did his best under the circumstances to avoid the accident, and was in no way to blame. He further stated that on the morning of the 2nd September he witnessed the *British Nation* being swept by the eddies from about the 23 feet line Bishop's College sand over to inside No. 1 Garden reach moorings, with about 30 fathoms of chain out, and thus narrowly escaped rolling over No. 1 flood buoy, whilst another vessel, *viz.*, the ship *Mairi Bhan,* half an hour previously, passed down safely. The harbour master

said that he mentioned this circumstance in order to show that no calculation could be made to avoid eddies, and that they might overtake a vessel at any time and in any place or position. The *British Nation* sustained but very slight damage, having lost her forecastle head and the capstan, and started her towing chocks; she immediately proceeded on her voyage. No damage to the cargo. No loss of life. (The collision was caused by eddy-tide, owing to which the *British Nation* became unmanageable.)

247. The American wooden ship MONARCH [of Halifax, Nova Scotia, 1,187 tons register, official number 75081], from New York to Calcutta, with a cargo of kerosine oil and piece-goods. On the 1st September the ship was lying at No. 2 Garden reach moorings, Hooghly river, discharging her cargo. The master stated that on the evening of that day the ship *British Nation,* in charge of an assistant harbour master, was dropping down the river, when at 8 P.M. the *British Nation* sheered to the right or starboard side and fouled the *Monarch*, striking the latter vessel abaft the fore rigging and carrying away the bulwarks, the stanchions and the main rails on the port side, and smashing the topsides, also damaging the crossjack and the mizen topsail yards. On the 1st October the *Monarch* was examined, and as recommended by the Surveyors, two Native divers were engaged for examining the vessel's bottom. The divers reported that they surveyed the bottom of the *Monarch* very carefully on the 6th October whilst she was lying at her moorings at No. 4 Hastings, and found the copper ripped off underneath the keel from forefoot to 15 feet aft, and the same under the keel 18′ × 12′, but discovered no other damage in any place. Value of damage to the *Monarch,* ₹800. No damage to the cargo. No loss of life. (The collision was caused by eddy-tide, owing to which the *British Nation* became unmanageable.)

248. The Italian iron screw steamer GIAVA [of Genoa, 2,045 tons register, official number 46], from Calcutta to Genoa, with a general cargo. On the 1st September the steamer, in charge of a pilot, was proceeding down the Hooghly river; at 6-15 A.M. whilst turning at Garden reach, within the boundary of the port (Calcutta), the steamer fouled the *Aral* wreck buoy above Garden house point a little before the stern post. The engines were stopped at the time, and after ascertaining whether any damage was done to either the vessel or the buoy, the pilot proceeded down the river. The pilot stated that he began to turn at the Lower Bishop's College sand buoy, and owing to the under-current caused by the then incoming flood he could not get the steamer more than athwart, and seeing the tug *Rattler* taking in tow the ship *Lochee* just below Garden house point, he would have risked a collision if the *Giava* was not head down the river before she drifted down to the *Lochee;* the engines having been kept moving astern a little too long to clear the buoy No damage to the steamer or cargo. Value of damage to the buoy, ₹50. No loss of life. (The casualty was accidental. As the vessel had gone to sea, no inquiry could be held, and there appeared to have been only a little damage done to the buoy. This collision was of a class exactly similar to that which led to the loss of the steamer *Reliance.)*

249. The British iron paddle steamer DEFIANCE [of Calcutta, 222 tons register, official number 41003] was employed as a steam-tug on the Hooghly river. At 2 P.M. on the 5th September the tug *Defiance,* whilst going alongside to take the ship *Turseena* in tow, came into collision with the latter vessel, which was lying at anchor 12 miles South-West of the Eastern Channel lightship (Sandheads). No material damage was done to the *Defiance,* except some mouldings of the paddle box being carried away; estimated value ₹50. No loss of life. (The collision was reported as having been caused by the master of the tug *Defiance* having gone too close to the *Turseena* to pass hawsers.)

250. The Arabian wooden ship TURSEENA [formerly the *Shelometh,* of Jiddah, 816 tons register, no official number], from Linjah to Calcutta, with a cargo of rock salt. On the 5th September the ship was lying at anchor in latitude 20° 51′ N., longitude 87° 49′ E. (Sandheads), waiting for a steam-tug to proceed up the Hooghly river. At about 1-15 P.M. the *Defiance,* from ahead of the *Turseena,* went round her, from the left to the right side, for the purpose of conversing with the master of the ship, when the tug fouled the *Turseena.* No damage was done to the steamer, but by the shock the *Defiance* went a little off from her alongside. The master of the ship, after lowering his sails, refused to allow the tug to tow at that time, whereupon the master of the steamer assured him that he would manage her carefully, and that no accident would occur a second time. But when at 2 P.M. the *Defiance* came again ahead of the *Turseena,* to pass the necessary hawsers to her, the *Defiance* again came into collision with the *Turseena* with great force, thereby doing considerable damage to the latter vessel's jibboom, castella, &c.; estimated value ₹430. No loss of cargo. No loss of life. (The collision was reported as having been caused by the master of the tug *Defiance* having gone too close to the *Turseena* to pass hawsers.)

251. The British Indian padow HARIPRASAD [of Bulsár, 18 tons register, official number 1901], from Kelmi to Broach, with a cargo of fruit. On the 7th September the padow, when off the bar of the Orunga river, in the Gulf of Cambay, sprung a leak in consequence of heavy weather. At 10 P.M. the leak not decreasing, the crew had to throw overboard a portion of the cargo in order to lighten her. Value of damage to the padow, ₹110; cargo worth ₹250 was lost and damaged. No loss of life.

252. The British iron screw steamer CHANDA [of Glasgow, 1,305 tons register, official number 76759], from Calcutta to Bombay, *viâ* coast ports, with a general cargo. On the 7th September the steamer in charge of an assistant harbour master was going down the Hooghly river, preparatory to proceeding to sea in charge of a pilot. At 5-30 A.M. the assistant harbour master was dropping the steamer from No. 4 Calcutta moorings, and when off No. 9 Esplanade moorings in fair mid-channel, he put the helm a-port for stern board in consequence of the vessel having a slight sheer to port, and ordered the engines slow astern, but finding the steamer falling rapidly in towards the moorings, the assistant harbour master directed the engines to go full speed astern, whereupon he observed that the engines were moving ahead instead of astern; he then immediately ordered to stop and reverse full speed, but with the broad sheer that the vessel had, by that time, attained before her headway could be checked, the *Chanda* fell alongside the ship *Blair Drummond,* which vessel was lying in outside berth of No. 7 Esplanade moorings. The *Chanda* struck the *Blair Drummond's* bow with considerable force, thereby doing serious damage and hooking the moorings with her anchor, which was down at the time. The assistant harbour master stated that the master of the *Chanda* was working the telegraph in person on the lower bridge whilst he was on the upper bridge, and there being no one nearer than the first officer on the forecastle, he had no witnesses to attest his report, as the master declined to sign any reports generally. But the assistant harbour master attributed the cause of this accident solely to the engines having been moved ahead instead of astern. The harbour master reported that the S.S. *Chanda* hauled out from her moorings at No. 4 Calcutta at daylight during the first quarter of the ebb-tide, and had proceeded down under favourable circumstances with reference to state of tide. From the assistant harbour master's report, it seemed that the collision was caused by the engines being moved contrary to his orders, which he was not in a position to prove, having no witnesses to corroborate his assertion, as the master was the only person on the bridge, and at the time in charge of working

the telegraph, consequently it was not likely that the master would have admitted a mistake that would make the British India Steam Navigation Company liable for the damage. The steamer proceeded on her voyage the same day, in consequence the case could not have been inquired into, until after her return to port (Calcutta), and under the circumstances above stated, it would have been difficult to elicit the facts, and the assistant harbour master would have the benefit of the doubt. The Deputy Conservator observed that this collision was very nearly identical with a case that happened to the same steamer under the same master, and under the same circumstances, in June 1883, *viz.*, that the engines worked contrary to the telegraph and caused a collision. The master then wrote and exonerated the assistant harbour master from all blame in that instance, but on the inquiry contradicted his written statement entirely. Under those circumstances the Deputy Conservator concurred with the harbour master that the assistant harbour master should have the benefit of the doubt, more especially, as the same thing had happened before, and there were no witnesses to prove the case either way. The S.S. *Chanda* lost an anchor and chain and bent fish davit, the estimated cost of which was approximately ₹1000. No loss of cargo. No loss of life. (The collision was attributable to the engines having been moved ahead instead of astern.)

[A Departmental Committee of Inquiry was held at the Port Commissioners' buildings, Calcutta, on the 24th November, by the Deputy Conservator, to inquire into the cause of the collision which occurred between the S.S. *Chanda* and the ship *Blair Drummond,* thereby doing considerable damage to both vessels. The Committee observed that the circumstances of the case were briefly as follows:—The steamer *Chanda* was hauled out on the morning of the 7th September, by an assistant harbour master, from No. 4 Calcutta moorings and dropped down to just below No. 7 Esplanade moorings, and was about mid-channel, but slightly across the stream, with her head to the westward or towards the Howrah side. The assistant harbour master then ported his helm to straighten her up stream and to pass just clear of the tug steamers; but instead of the engines moving astern, they were moved ahead, and the result was that the *Chanda's* head fell off towards the Calcutta shore, and before the assistant harbour master had time to appreciate his position, she came into collision with the ship *Blair Drummond.* The assistant harbour master made two statements regarding the accident in his letters, dated the 7th and 8th September. The Committee recorded that in the first letter, written immediately after the accident, he unmistakeably had grave doubts as to whether he told the master of the *Chanda* to go ahead or astern, but that letter not being satisfactory to the harbour master it was returned, and orders were given to the assistant harbour to submit a clearer report with more details; the second letter, therefore, dated the 8th September, was submitted, and the former one of the 7th withdrawn. That letter then distinctly stated that the assistant harbour master attributed the accident solely to the engines moving ahead instead of astern. The Committee observed that the master of the *Chanda's* statement differed materially from the assistant harbour master's, and he produced witnesses to substantiate it. It appeared that the master was attending the engine telegraph in person, and admitted as correct the position the assistant harbour master assigned to the vessel, *viz.*, about mid-channel and head canted towards the Howrah shore, but then the master of the *Chanda* stated that the order was *slow ahead, full speed ahead,* and again *ring up full speed ahead;* the steamer having port helm naturally canted in towards the Calcutta side, and the master shouted out and drew the assistant harbour master's attention to the manœuvre of the vessel, the assistant harbour master replied "all right, I am looking out for her." Immediately after this the *Chanda* came into collision

with the ship *Blair Drummond;* and when coming into contact, the master of the steamer said that he cried out—"Good God, what have you done;" the assistant harbour master then replied—"Well, if I said go ahead I won't deny it, but I certainly meant go astern." The Committee recorded that this closed generally the master of the *Chanda's* statement, which the assistant harbour master in his evidence at the investigation admitted to have been a fairly true account of what happened, and therefore agreeing in the main with his first letter, dated the 7th September. The witnesses, *viz.*, the chief engineer and the clerk of the *Chanda,* also made a similar statement as far as hearing the conversation between the master of the steamer and the assistant harbour master. The chief engineer stated that he was standing in a position to see both his engine and the master of the vessel, and was perfectly confident of the master's orders being correctly understood and carried out with promptitude. The Committee observed that it had carefully considered the evidence obtained at this investigation; and although there was very strong presumption that the assistant harbour master did issue a wrong order and caused to be telegraphed to the engine-room *go ahead* instead of *go astern,* the actual words could not be established, as the only people present were the master of the vessel at the engine telegraph and the assistant harbour master on top of the bridge house, and it was within the bounds of possibility that with the noise of the steam blowing off, &c., that the master might have mistaken the order. It appeared to have been clear from the way the assistant harbour master was handling the steamer that he fully intended to make astern board. The Committee recorded that the amount of blame attributable to the assistant harbour master, assuming the officers of the *Chanda's* account to have been correct, was that he by inadvertence gave an order to go *ahead* instead of *astern,* the whole manœuvre was embraced within a minute or two; and if the Commissioners were pleased to give the assistant harbour master the benefit of the doubt as to whether the master heard the order correctly or not, it seemed to the Committee that a severe reprimand and caution would meet the case. In concluding the report, the Committee mentioned that they closely examined the master and the officers of the *Chanda* regarding the assistant harbour master's sobriety, and they all stated that the assistant harbour master was perfectly sober and fit for his duty.]

253. The British iron ship BLAIR DRUMMOND [of Glasgow, 1,450 tons register, official number 71687], from Calcutta to Dundee, with a cargo of jute. On the morning of the 7th September, the ship was lying at No. 7 Esplanade moorings, Hooghly river, with a full cargo of jute ready to proceed on her voyage, and was waiting for a tug steamer to tow her down the river. The master of the ship stated that at about 6 A.M. the S.S. *Chanda,* under charge of an assistant harbour master, was dropping down the river to Garden reach, and from some mismanagement in the handling of the steamer, either on the part of the assistant harbour master or the engineer in charge, not accurately ascertained, the *Chanda* ran into the *Blair Drummond,* damaging the bow of the latter vessel very badly. The Surveyors, on the afternoon of the 8th, proceeded on board the ship *Blair Drummond,* lying at No. 7 Esplanade moorings, in order to make a survey on the damage done to that vessel's port bow by a collision with the S.S. *Chanda,* whilst the latter vessel was dropping down on the previous morning. They found that several plates of the forecastle and a plate on the port side forward were broken and bent, besides sustaining other damage. The Surveyors were of opinion that the greater portion of the damage could be temporarily repaired to enable the ship to proceed on her voyage to Dundee, and that when she reached Home, the damaged plates should be taken out to their original butts and replaced with new ones. The rail on the port side of the topgallantf orecastle head bent, and two rail stanchions

started from the sockets and bent, the Surveyors recommended that the rails should be taken down and straightened and the stanchions to be taken out, repaired, and refastened with longer size butts; the side light screen started and shaken and the iron brackets fastening it to the covering board on forecastle head started and bent, the side light screen to be taken down and repaired, and the iron brackets to be repaired and refastened with larger size screws, and the screen to be securely fixed to the rails as before; the iron cleat for whisker on the forward side of the port cathead bent, to be taken off, straightened and refastened with longer size bolts; the forward upper corner of the port cathead chafed and splintered, to be dressed down; the jib guy on the port side broken and the three dead eyes broken off and lost, the broken plate to be removed and a new plate made with good solid eyes for the dead eyes to shackle on to it and the new plate well rivetted on to the side. Three new dead eyes with iron straps to be supplied and fitted as before. The shank painter cleat broken, to be taken off or a new cleat made as found necessary; the shank painter chain broken, a new link to be welded in the chain and shackled to the side as before; the fish davit bent, to be taken on shore and straightened; the wooden finishing bracket at front of forecastle on the port side broken, to be renewed with a teakwood bracket carved as before; the topgallant rail on the port side from the break of forecastle to the after-part of the fore rigging broken and the bulwark plate and angle iron set inboard slightly, the topgallant rail to be removed from the forecastle to the scarph at the after shroud of forerigging and renewed with teakwood and fastened as before. The bulwark plate to be set out, and the angle iron under the rail, if damaged, to be repaired, and the bulwark, the angle, and the rail put in the same good condition they were in before the accident. The port bower anchor stock broken and lost overboard, to be replaced with a new anchor stock; the after length of the upper strake of topgallant forecastle plating above the main rail moulding bent inwards under the jib guy plate and the frame angle slightly bent, a plate to be fitted over the bent part to receive the jib guy plate as a temporary repair; the second length of the same strake of plating bent under the shank painter cleat immediately abaft the bill board and the frame angle slightly bent, to be temporarily repaired. The wooden moulding following the line of topgallant rail started at the ends adjoining the bill board, an extra bolt to be put on each end to prevent the moulding from being washed off The second plate from the break of forecastle on the strake of plating between the gunwale and the main rail mouldings broken at afterside of bill board, to be patched with an over all plate outside about 15″ × 10″ as a temporary repair; the same plate broken on the forward part of the bill board and a hole made through it 18″ × 12″, to be patched with an over all plate as directed as a temporary repair; the third length of plating on the same strake broken under the cathead and a hole made in it about 3′ × 2′, to be patched with an over all plate as directed as a temporary repair. The sheer strake and the iron gunwale moulding under the cathead, about 2 feet long and down to the angle bar of the stringer plate, and four rivets of the angle bar started and the plate cracked in that place, should be left until the vessel arrived home. The frame under the cathead between the main deck and the topgallant forecastle deck badly bent and twisted out of shape and broken through the rivet hole, should not be disturbed until the ship went home. Two frames abaft the above mentioned frame, more or less bent inboard, should be left alone until the vessel arrived home; the nut frame on the forward part of the bill board cracked and the frame on the after side of the bill board badly bent and cracked, and the nut frame abaft it slightly bent; there were in all seven frames bent and cracked, but being all above the main deck, they need not be repaired until the ship arrived home; a plate on the third strake of plating from the gunwale under the cathead, on the port side, cracked through between the first and second

frame forward of the collision bulkhead, an over all plate to be securely rivetted on he outside over the damaged part and cemented inside as a temporary repair The Surveyors recommended that when those repairs were completed, another texamination should be made to ascertain whether they had been done in an efficient manner to take the *Blair Drummond* home in safety. The principal damage to the ship being above the upper deck, temporary repairs only were done at Calcutta with a view to take the vessel to her destination at a cost of ₹1,000; and the permanent repairs were estimated at ₹4,000. No damage to cargo. No loss of life. (The collision was attributable to the engines having been turned ahead instead of astern.)

254. The British Indian padow HARAKHSAVAI [of Broach, 53 tons register, official number 1630], from Broach to Calicut, with a cargo of pulse, cotton yarn, and kharoi cloth. On the 8th, September the padow met with heavy weather when about 4 miles to the North of Vaux's tomb (Gulf of Cambay); at 8 P.M. she shipped much water, and a large quantity of the cargo was consequently thrown overboard to lighten her. Value of damage to the cargo, ₹1,122. Little or no damage to the padow. No loss of life.

255. The British Indian padow LABSAWAI [of Bulsár, 29 tons register, official number 2056], from Broach to Bilimora, with a cargo of firewood and salt fish. On the 8th September the padow, when near Mittubhoy in the Sina river (Gulf of Cambay), met with heavy weather; she took in so much water that she sank at 12 P.M., notwithstanding the untiring efforts of the crew to keep her afloat. The crew at low-water discharged the cargo, and after effecting temporary repairs and bailing the water out, she floated on the next flood-tide. Value of damage to the padow, ₹150; cargo worth ₹70 was damaged. No loss of life.

256. The British wooden ship PRINCEPORT [of Liverpool, 1,214 tons register, official number 69116], from Bombay to Calcutta, with a cargo of salt. The ship left Bombay at 2-30 P.M. on the 10th September, and had proceeded on her intended voyage only 8 miles from the Outer lightship, entrance to Bombay harbour, when the wind set in at W.N.W. and all plain sails were set. At 11-30 P.M. the weather was fine and the sea was running flood in an E.S.E. direction, when owing to the vessel's top sides being dried up she sprung a leak. The master immediately put all hands on the pumps and continued pumping until noon of the next day without keeping the water under. The crew finding the ship making 6 inches of water per hour—all the men being worn out and their hands blistered by pumping—went up in a body and asked the master, as the vessel was leaking badly, to put back to Bombay, whereupon the master called the officers and consulted with them, and they being of the same opinion, the master thereupon hoisted the signal for a pilot, but could not obtain one; the master then proceeded with the vessel leaking at the rate of 4 inches per hour without a pilot, ran up the Bombay harbour and came to an anchor 3 miles W.N.W. of the Prince's dock in 7 fathoms of water. The vessel was surveyed on the 16th September, and ordered to be lightened in order to discover the leak which was supposed to have been about the copper line. On the 26th September the Surveyors reported that the *Princeport* had been caulked from the copper line to the gunwale, and was then tight and ready for sea. After having re-shipped the discharged cargo she proceeded from Bombay on her voyage on the 29th September. Value of damage to the ship, ₹2,377; cargo, ₹1,222. No loss of life. (The casualty was unavoidable).

257. The British iron ship CAWDOR [of Liverpool, 2,355 tons register, official number 87958], from Liverpool to Calcutta, with a cargo of salt. On the morning of the 12th September, the ship in tow of the steam-tug *Challenge* was proceeding up the Hooghly river, in charge of an assistant harbour master, from below No. 1 Garden reach moorings at slack water; the assistant arbour master by

not taking the necessary precautions to ease down in time and stop her headway, before closing up with the allotted moorings, caused the *Cawdor* to foul the barque *Banffshire,* which vessel was lying at No. 7 Garden reach moorings, doing the following damage to the latter vessel, *viz.* :—breaking her main yard in two in the middle, breaking her main and topgallant rails, bending her bulwarks inboard between the fore and main rigging, and carrying away the fore shrouds and backstays of her fore-rigging, &c. The *Cawdor* sustained no damage beyond carrying away her starboard bowsprit shroud. The harbour master stated that the assistant harbour master's report itself proved mismanagement as the cause of the collision, in coming up at slack water in tow of a powerful tug and not taking necessary precautions to ease down in time and stop her headway before closing up with the allotted mooring, and in letting go his anchor with so much headway on, at the risk of parting the cable which, in all probability, would, in this case, have led to serious disaster. Value of damage to the *Cawdor,* not known. No loss of cargo. No loss of life.

[A Departmental Committee of Inquiry was held at the Port Commissioners' buildings, Calcutta, by the Deputy Conservator, on the 20th September, to investigate the cause which led to the collision of the ship *Cawdor* with the barque *Banffshire.* The Committee recorded that the circumstances of the case appeared to have been these :—An assistant harbour master went on board the ship *Cawdor* in Garden reach, and was towed up the river by the steamer *Challenge* to abreast the moorings. The hawser was then cast off and the starboard anchor let go, with the helm hard-a-starboard, but the *Cawdor* sheered against her helm and eventually came into collision with the barque *Banffshire.* The Committee observed that on investigation the evidence went to prove that the ship *Cawdor* had too much weigh on when cast off, and with the starboard anchor let go and the tide on her port bow, the natural effect was to shoot her in towards the vessels lying in the moorings on the starboard side. The Committee were of opinion that the assistant harbour master did not take the proper precaution to ensure the safety of the vessel, and after letting go the hawser, he should have allowed the *Cawdor* to run up the port to deaden her weigh and get the tide on his starboard bow, if wishing to let go the starboard anchor, but had the upper part of the port not been clear for him, the port anchor should have been let go, and thus ensured the ship bringing up in safety. None of those precautions appeared to have been taken, and, with the evidence of the speed, the *Cawdor* must have had to get where she did, the Committee therefore considered that the cause of the collision was due to the unskilful manner in which the ship was handled by the assistant harbour master.]

The Deputy Conservator in forwarding the proceedings of the Departmental Committee of Inquiry to the Vice-Chairman, reported that the assistant harbour master boarded the ship *Cawdor* in Garden reach, and was towed up the port to abreast her moorings, and after casting off her starboard anchor when the vessel had considerable weigh on and a broad sheer in towards the moorings. To check her the assistant harbour master veered out cable, but finding her still forging ahead, he let go her port anchor, but it was then too late, and she fouled the barque *Banffshire,* which vessel was moored head and stern in the mooring. The Committee considered that he had not taken the necessary precaution with the handling of the vessel, and had therefore charged him with unskilfulness, and the Deputy Conservator added, that the fatal mistake in veering cable on the starboard anchor, instead of immediately letting go his port anchor, might have ended most disastrously for the barque *Banffshire,* as if the anchor had taken the ground, the probability was that the cable would have snapped and the *Cawdor* would then have had nothing to check her hitting the *Banffshire* very severely. The Deputy Conservator observed that the second case on the same date was a very narrow escape for the ship *Baron Aberdare,*

and, considering therefore both circumstances and the previous character the assistant harbour master bore in the service, he recommended that the assistant harbour master be severely dealt with by being reduced to the bottom of the list of the second grade of assistant harbour masters.

The Vice-Chairman approved of the recommendation of the Deputy Conservator.

258. The British iron barque BANFFSHIRE [of Glasgow, 899 tons register, official number 82319J, from Cardiff to Calcutta, with a cargo of coals. On the morning of the 12th September the barque *Banffshire* was moored head and stern at No. 7 Garden reach moorings, Hooghly river; the ship *Cawdor* in proceeding up the port in charge of an assistant harbour master, and in tow of the tug steamer *Challenge,* at slack water, came into collision with the *Banffshire* in consequence of the assistant harbour master not taking necessary precautions to ease down the *Cawdor* in time, and thus stop her headway before closing up with the allotted moorings, and thereby doing the *Banffshire* considerable damage. On the following day, the Surveyor to Lloyd's Agents proceeded on board of the barque *Banffshire,* lying at No. 7 Garden reach moorings, in order to make a survey of the damage sustained by that vessel by being run into on the port side by the ship *Cawdor* on the previous morning, thereby damaging the rails and bulwarks between the fore and the main rigging, carrying away the shrouds of the fore rigging, breaking the main yard in two near the middle, besides doing other damage. The Surveyor reported that the two pairs of shrouds and two topmast backstays of the fore rigging on the port side were carried away; they recommended that the foretopmast, the topgallant mast, and the yards be sent down and the damaged rigging taken off the mast and replaced with new wire shrouds and backstays, seized, parcelled, and fitted with new rattling as before; the fore lower cap backstay on the same most badly chafed and cut, to be taken off and replaced with a new wire backstay, same size as the damaged one, and set up as before; the forward swifter of the fore rigging in the port side chafed about 10 feet above the rail, the parcelling to be taken off and the swifter carefully examined and renewed, if found damaged; the pin in the crane of the lower foretopsailyard bent, to be taken out for examination, and if found to have been broken, to be replaced with a new pin made of good refined iron and properly fitted in the crane; the foremast head bent slightly to starboard, from the fore-yard truss band upwards, a staging to be made and the mast carefully examined from the truss band upwards after the rigging was taken down; the main rail on the port side and the pin rail bolted to it were broken abreast of the after part of the deckhouse, the main rail to be renewed from the scarph at the foretopmast backstay to the scarph about 4 feet forward of the main rigging and replaced with a new teakwood rail about 50 feet long in two lengths, size $7\frac{1}{2}' \times 3\frac{1}{2}''$. The lengths of the pin rail to be taken off to get the main rail fitted, *viz.,* from the original scarph forward to a new butt cut at the second shroud of the main rigging, in all about 65 feet long, and the broken length renewed. Some of the original rails might be utilised if carefully handled when being taken off, size of pin rail $5' \times 3\frac{1}{2}''$; the topgallant rail broken abreast of the after part of deckhouse, to be removed from the original scarph at the foretopmast backstay to the scarph about 5 feet forward of the main rigging and replaced with a new teakwood rail about 50 feet long in two lengths, size $6\frac{1}{2}'$ by $3''$ finished; the iron bulwarks bent inboard abreast of the after end of the deckhouse and cracked longitudinally outside at the main rail and the plate scored in several places, the two damaged plates which were each about 12 feet long by 4 feet broad and about $\frac{1}{4}$ inch or $\frac{5}{16}$ inch thick, to be taken off and replaced with two new plates of the same size as the old ones, the rivets to be countersunk and flush on both sides; the angle bar under the topgallant rails bent and broken abreast of the after part of the deckhouse, to be cut at the foretopsail

halyard chain plate on the forepart, and the after part to be cut 16 feet from the original butt where broken and a new angle bar about 36 feet long supplied and rivetted to the bulwarks, the rivets to be countersunk and flush outside; the angle bar under the main rail broken at the same place, the forward length to be cut 10½ feet from the original butt and the after length to be cut about 2 feet abaft the original butt and the after length to be cut and the part between to be removed and replaced with a new bar, same size as the old, and rivetted to the bulwark as before, the rivets to be countersunk and flush outside; 4 bulwark stanchions bent, one of them badly bent and broken and the cement at the foot of the other in the gutterway cracked, to be taken out, repaired, straightened, and rivetted; the teakwood deck plank next to the gutterway was started where the stanchions were bent, this plank to be taken out to get at the rivets, and if required, to be renewed. It should be taken out to the original butts and replaced with another teakwood plank 34′ × 8″ × 4″; the main yard carried away on the port side about 6 inches outside of the truss band, this might be paired if time will permit by unrivetting one end of the spar and renewing the two plates where broken and rivetting the plate from the centre towards the end. Should there be no time to repair the broken yard, a new wooden one to be supplied and fitted to take the barque home; the iron lift block of the main yard on the port side broken, to be repaired or replaced with a new block; the clip hook of the main brace pendant broken, to be replaced with a new clip hook, and the other gear of the broken yard to be examined when the yard was taken down on deck; the fore brace cleat rivetted on the bulwark at the forward part of the main rigging was broken, to be taken off, repaired, and rivetted same as before; the coats of the fore and the mainmasts, to be taken off and the mast wedges removed for examination of the masts at the partners, the mast coats to be renewed and the wedges replaced. The Surveyor having carefully examined the masts in the partners and the butts of the mainmast, and finding no defects, was of opinion that the mainmast was not damaged; the foremast should be examined when the topmast was sent down. On account of the shock, the *Banffshire* received by the collision, the Surveyor was of opinion that the decks on the port side should be caulked from forecastle to the poop as far as the deckhouse and the mainhatch combings; the windlass to be taken down and examined. The Agents reported that the temporary repairs so far had cost about ₹5,000; but there still remained a further amount of ₹800 to be expended when the *Banffshire* arrived home, for a new iron main yard was to replace the wooden yard supplied in lieu of the broken one, also for some blocks and other small articles which were not supplied at Calcutta. No damage to the cargo. No loss of life.

259. The British iron ship BARON ABERDARE [of Greenock, 1,630 tons register, official number 67944], from Calcutta to London, with a general cargo. At 6-30 P.M. on the 12th September whilst the assistant harbour master was attempting to haul the ship *Baron Aberdare* from No. 1 jetty to No. 22 swinging mooring in the Hooghly river, at dead slack water, owing to some mismanagement, allowed the ship to drop on top two of the flood buoys at No. 8 Calcutta moorings, thus causing a collision. The Surveyors, on the following morning, boarded the vessel lying moored to the buoys off No. 1 jetty for the purpose of ascertaining whether the hull had sustained any damage through fouling, on the previous evening, with a tier of buoys, thus sinking two of them. From information obtained, the Surveyors found that the *Baron Aberdare*, after having completed her loading, was unmoored from the buoys at 6 P.M. on the 12th September, it then being slack tide, the vessel's head at that time being up the river, and a line from the port bow was carried out to a buoy in the middle of the river with a view to haul her out, the starboard side of the vessel was abreast of No. 8 buoy on the Calcutta side; the ship being almost station-

ary. When the tide made down, the *Baron Aberdare,* in some unaccountable manner, fell across the tier of three buoys at No. 8 — the mooring that she had left previously—with her bow towards the Calcutta shore, her starboard side lying hard against the three buoys, they being about 50 feet apart, the tide making down stronger, the weight of the vessel against the buoys became greater causing the buoy abreast the mizen and the main rigging to sink; the ship then swung round with the third buoy under her starboard bow, and her head up the river. She was afterwards remoored to the buoys off No. 1 jetty where she was examined. The Surveyors reported that, from information received from the master, the *Baron Aberdare's* bottom was examined by two native divers, who stated that the vessel had not sustained any damage. The Surveyors not being satisfied with the native divers' report, as an extra precaution they had the Port Commissioners' diver, with diving apparatus, to examine the bottom again in their presence. At 6 A.M. the diver commenced aft under the starboard quarter, and slowly worked his way from there all along the starboard side to the bows, examining the vessel's bottom from the keel up to the water's edge, but did not detect any damage to any part of her bottom on that side, the paint being the only thing felt rubbed off by the sinking buoys; he also examined the rudder under water, but found nothing wrong. The Surveyors carefully examined the rudder on deck, which was in good order, and detected no sign of the vessel having strained in any part of her hull; and the soundings obtained in the pump well showed that the vessel was not making water. The Surveyors having done all they possibly could to ascertain the state of the vessel's bottom afloat by the best means available—that of divers—and fully believing their reports that the vessel was not damaged, they recommended that she proceed on her voyage without further examining her in dock, which would have entailed greater detention and extra expense. The Surveyors advised that the *Baron Aberdare* should be docked for examination when she reached home. The harbour master stated that the ship was ordered to be hauled from No. 1 jetty on the afternoon of the 12th September in order to make room for the S.S. *Clan Matheson,* as the *Baron Aberdare* was to proceed to Garden reach the following morning at daylight, to be placed at No. 22 swinging mooring. In the attempt to haul the ship from her mooring at dead slack water, and under most favourable circumstances, the assistant harbour master, by some unaccountable mismanagement, fouled one of the flood buoys outside No. 8 Calcutta moorings, canting the vessel's head towards the jetty lying across spanning three of the flood buoys outside No. 8 Calcutta moorings. The ebb-tide made down full strength about 8 P.M., by which time the harbour master was on his way on board. Fortunately the weight of the *Baron Aberdare* on the buoys crushed and split open the plates of the two outer buoys, and they sunk before having had time to rise on the other side of the keel after the ship forced over them; the third buoy being forward of the centre, balanced the vessel, and she swung fair to the tide with port anchor foul of the mooring. The assistant harbour master did not appear to know what he was about owing to his state of mind, no doubt caused by the accident; the harbour master relieved him of the charge, and before leaving saw the ship in safety, and kept the senior assistant harbour master in charge. In the harbour master's opinion the accident was solely due to mismanagement on the part of the assistant harbour master; it was quarter day, no flood stream to prevent the *Baron Aberdare* being hauled out with perfect safety at any time between the hours of 4 P.M. and 6-30 P.M. The vessel's bottom was examined twice on the morning of the 13th September by native divers, and on the application of the master again in the evening by the Port Commissioners' diver, under supervision of the Surveyors, and found to have sustained no damage whatever. She having been permitted to proceed on her voyage on the morning of the 15th, there was no time to assemble a Departmental Committee of

Inquiry as suggested in the Agent's letter. Value of damage to the *Baron Aberdare,* ₹500, but the Surveyors reported that in consequence of the accident the vessel will have to be docked for examination when she arrived home, and hence further expenses must be incurred. Value of damage to the buoys ₹200. No damage to the cargo. No loss of life.

(The Deputy Conservator stated that the assistant harbour master was guilty of mismanagement attended with marked carelessness. From the assistant harbour master's own statement he allowed the ship *Baron Aberdare* to drop on top of No. 8 flood buoy, off No. 8 Calcutta moorings; whereas had he taken even the precaution, when breasting the vessel out, to have run a spring from his starboard quarter to one of the ebb buoys off No. 8 Calcutta moorings, it would have canted the ship's head out of the moorings and ensured her not dropping down before clear of the flood buoys, instead of which he proceeded to haul out towards a buoy well on his port quarter, and naturally got the vessel astern faster than she could possibly go out clear of the buoys. It might have been a most serious accident, and it deserved the severest mark of displeasure that could be awarded, but pending the Departmental Committee of Inquiry held to inquire into the cause of the collision between the ship *Cawdor* and the barque *Banffshire,* the former vessel being in charge of the same officer, the Deputy Conservator recommended that the assistant harbour master be suspended from duty.)

260. The British iron screw steamer BUCEPHALUS [of Melbourne, 1,192 tons register, official number not reported], from Calcutta to Australia, with a cargo of castor oil, gunny bales, tea, and rice. On the 13th September the steamer, in charge of a pilot, was proceeding down the Hooghly river; at 10-10 A.M whilst going round point Jelly reach, a little above the point, the wheel chains jammed for a few seconds, when the steamer touched the bank with her port bilge, but did not stop. She immediately proceeded on her voyage to sea. No damage to the steamer or cargo. No loss of life. (The accident was unavoidable.)

261. The British iron ship BARON ABERDARE [of Greenock, 1,630 tons register, official number 67944], from Calcutta to London, with a general cargo. On the 15th September the ship, in charge of a pilot and in tow of the steamer *Hunsdon,* was proceeding down the Hooghly river; at 2-30 P.M., the flood-tide was just coming in when the *Baron Aberdare's* hawser parted, but she never lost her way, and touched the ground slightly in the Auckland channel. The pilot stated that, owing to the ship never losing her way, and he being on the forecastle till well deepening over the Auckland bar, he consequently could not determine the vessel's position by bearings at the time of the accident. But, to the best of his judgment, she was in mid-channel about 200 or 300 yards above the Lower Eastern Auckland buoy, with the Centre Western Auckland buoy a little open to the westward of Kedgeree, which placed her a little to the eastward of the mark given for crossing the bar, which was slightly lower down. The ship grounded so gently that neither the pilot nor the master, who was on the poop, perceived it; the leadsman only got two casts of 3½ fathoms, so there must have been evidently a small lump, as several vessels had recently got into small water. No damage to the ship or cargo. No loss of life. (The casualty was unavoidable owing to the change of the channel; the bar on which the vessel grounded was re-examined.)

262. The British iron screw steamer MAHARAJA [of Liverpool, 1,046 tons register, official number 81268], from Calcutta to Point de Galle, with a cargo of grain. On the 17th September the steamer, in pilotage charge, was proceeding down the Hooghly river; at 7-20 A.M., it being low water, whilst the pilot was in the act of turning at Budge-Budge, the steamer's heel grazed the mud flat off the Bowreah mills for a few minutes. The least water given by the leadsman was a

quarter less five fathoms; she proceeded immediately on her voyage. At 1-40 P.M. the same day the vessel also touched on the Auckland bar, about midway between the Lower Eastern Auckland and the Upper Eastern Eden buoys, during the last quarter of the ebb-tide. She was aground for five minutes, and the least water obtained was $3\frac{1}{2}$ fathoms; the engines being kept going all the time, the steamer proceeded to sea. The pilot stated that the mark given by the River Survey Department was exactly on, being neither to the eastward or westward of that line, but the exact position he could not define as the steamer never stopped, thus making it impossible to take bearings. No damage to the steamer or cargo. No loss of life. (The casualty was accidental, inasmuch as it was caused by an alteration of the channel.)

263. The British iron ship WEST LOTHIAN [of Glasgow, 1,814 tons register, official number 86721], from Calcutta to London, with a general cargo. On the 17th September the ship, in charge of a pilot and in tow of the steamer *Clive,* was proceeding down the Hooghly river; at 6-50 A.M., whilst turning the vessel during the last quarter of the ebb-tide in Garden reach, and when athwart the river, the steamer fouled the *West Lothian,* the tug's stern coming in contact with the latter's port side before the poop, carrying away 18 feet of the bulwarks just above the waterway and bending in the topgallant rail. The pilot stated that, having both the steamer's hawsers, the ship could not assist the tug in any way by working them, but that the accident was attributable to the manœuvring of the tug. The master of the tug (a licensed steam-tug pilot) had lately taken charge of the *Clive,* the it was his first experience in handling a twin screw, which was more difficult when turning so long (her length being 279 feet) and heavy a ship. Value of damage to the *West Lothian* not reported. No cargo damaged. No loss of life. (The casualty was accidental.)

264. The British iron twin screw steamer CLIVE [of Glasgow, 572 tons register, official number 87403], was employed as a tug steamer on the Hooghly river. On the 17th September, whilst the tug was turning the ship *West Lothian* at Garden reach to proceed down the river, her stern fouled the ship's quarter, bending a plate in the *West Lothian's* bulwarks, and breaking the wood work of her own rail. Value of damage to the *Clive,* ₹50. No loss of life. (The accident was unavoidable.)

265. British Indian padow RUPAREL [of Broach, 37 tons register, official number 1727, age 39 years], from Broach to Bombay, with a cargo of peas and grain. On the 18th September the padow, when at the bar of the Ambika river (Gulf of Cambay), met with heavy weather, which caused one of the joints in the keel to open out; at 12 P.M., she took in much water when a portion of the cargo was thrown over board in order to lighten her, but unsuccessfully, and she only just managed to reach Bilimora, where she was beached. Value of damage to the padow, ₹350; cargo worth ₹500 was lost, and ₹200 damaged. No loss of life.

266. The British iron ship EARL OF BEACONSFIELD [formerly the S.S. *Cuba,* of London, 2,488 tons register, official number 50357], from Calcutta to Dundee, with a cargo of jute. It appeared that the ship, after she had discharged all her inward cargo of kerosine oil, while proceeding from the oil moorings at Matea-bruj to her anchorage at Engine-house moorings for the purpose of loading her outward cargo of jute for Dundee, touched the ground with her heel at Garden reach. The assistant harbour master stated that on the 19th September, whilst dropping the ship up the Hooghly river in ballast during flood tide, the breeze sprung up afresh from the S.E., the vessel got across the tide with her bow towards the South, whereupon the assistant harbour master allowed her to drop in that position until little above Camberbatches point, but seeing the vessel was nearing the southern bank he brought her up, and when she straightened up the breeze caught her starboard quarter and forced the quarter on the bank, when the *Earl of Beaconsfield's* heel touched the ground at Garden reach at

about 1 P.M. The ship hung on for a while with her head to the westward at an angle of 45°, and it was hoped that she would slip off whilst the tide was rising, but the assistant harbour master on finding that she did not come off veered away chain until he got her head up the river, after which he ran out a kedge anchor from the vessel's port quarter into the stream and hove on it, and also ran another line out from her bow to the Lower Bishop's College sand buoy and hove on it. At that time the India General Steam Navigation Company's steamer *Sudiya* was proceeding down when the assistant harbour master hailed to give her a tow off when she floated off after having been aground for half an hour. The Surveyor to Lloyd's Agents proceeded on the morning of the 23rd September on board the *Earl of Beaconsfield* lying at Engine-house moorings, to make a survey on that vessel in order to ascertain whether she had taken any damage by her heel having grounded at a place on the South side of the river a little above camberbatches point, Garden reach, when dropping up in ballast from Matea-bruj to her then present moorings on the 19th September. After a careful examination of the vessel afloat, the Surveyor reported that, as far as he was able to observe, the ship had taken no damage whatever by the grounding, and that in his opinion the *Earl of Beaconsfield* was still staunch, strong, and fit to carry a dry and perishable cargo to any part of the globe. Value of damage to the ship nil. No damage to the cargo. No loss of life. (The casualty was unavoidable.)

267. The British iron screw steamer PEMBA [of Glasgow, 987 tons register, official number 76803], from Maulmain to Rangoon, with a general cargo. On the 24th September, the steamer, in charge of an assistant harbour master, was proceeding up the Rangoon river (Burma coast); at 6-10 P.M. the assistant harbour master, whilst bringing the steamer alongside the Shulay Pagoda wharf, observed that there were four cargo boats at anchor abreast of the wharf, whereupon he sounded the whistle, but notwithstanding the warning, they would not move out of the way, thereupon the assistant harbour master let go the port anchor, and in swinging round the *Pemba* fouled the two lower boats, without causing any damage to them; one of the boats slipped her cable, as she evidently could not get out of the way. The *Pemba* received a deep dent on her port bow in consequence of the collision, but the estimated value of the damage was not reported. No damage to the cargo. No loss of life. (It was stated that the casualty could have been avoided by removing the cargo lighters out of the fairway before proceeding alongside of the wharf; it was flood-tide, the weather was clear, and the wind a gentle breeze from S. W.)

[A Departmental Committee of Inquiry was held at the Port Office, Rangoon, on the 22nd October, to inquire into the cause which led to the collision of the S.S. *Pemba* with two cargo boats. The Committee recorded that, taking into consideration the evidence of the master of the S. S. *Pemba,* they were of opinion that as night was approaching when the steamer was nearing the Shulay Pagoda wharf, the assistant harbour master in his anxiety to save time for landing the mails, and naturally depending upon the crews of the cargo boats to lift their anchors when they saw the vessel coming and blowing her whistle, held on letting go his anchor a little too long; nevertheless, under the circumstances, the Committee observed that they were not prepared to blame the assistant harbour master. That the fairway abreast a wharf should have been kept clear when a vessel was expected was beyond question, and the Committee desired to offer a suggestion to this effect. That as the officer in charge of a wharf was made aware that a vessel was coming to his wharf several hours before her arrival, that the duty of keeping the fairway clear off the wharf should devolve upon that officer, assisted by the River Police. The Committee also desired to point out that it was customary for agents, who had cargo consigned to them by a particular vessel, to order the boats to anchor near the wharf to which she was

coming; this practice should, the Committee considered, be discontinued, as it was unfair to the subordinates of the Marine Department for agents to block up the fairway and then "cry out" when the mails were delayed. The assistant harbour master was therefore acquitted from all blame.]

268. The British iron barque BELPORE [of Liverpool, 1,200 tons register, official number 54987], from Calcutta to London, with a general cargo On the 24th September the barque, in charge of a pilot and in tow of the tug *Clive,* was proceeding down the Hooghly river; at 8-30 A.M., the *Belpore,* when in the act of turning at Fisherman's point, slightly touched the bank, but never stopped her way Again, whilst on her way down the river at 4-45 P.M. the same day, the tide falling from 9 to 8 feet when on the bar, the leadsman gave $3\frac{1}{2}$ fathoms only, and getting $13\frac{1}{2}$ feet instead of 16 feet, as reported by the River Survey Department, the vessel grounded in the Auckland channel; the steamer's hawser slipped from the barque and the *Belpore's* hawser parted, but the vessel continued on, and was brought up abreast of the Lower Eastern Eden buoy, where she anchored for the night. She did not remain aground but proceeded immediately on her voyage. The pilot stated that he did not take any bearings as the occurrence took place in such a short space of time, but as near as he could remember the Centre Western Auckland buoy was very little open to the westward of Kedgeree. No damage to the steamer or cargo. No loss of life. (The accident was unavoidable, inasmuch as it was due to a change of the channel.)

269. The British Indian pattimar SACRI SALLAMATEE, [of Málvan, 40 tons register, no official number, age 57 years], from Cochin to Bombay, with a cargo of coir and poonac. During a heavy weather on the 24th September, the masts, yards, &c., of the pattimar were carried away when off the port of Cochin (Malabár coast),—exact position not given. The pattimar was subsequently brought into Cochin dismasted by the muchwa *Dastigiri.* Value of damage to the pattimar and the cargo not reported. No loss of life.

270. The British iron screw steamer ETHIOPIA [of Glasgow, 1,314 tons register, official number 68120], from Calcutta to Rangoon, Maulmain, and the Straits, with a general cargo. On the morning of the 25th September, the steamer was dropping down the Hooghly river, in charge of an assistant harbour master, from No. 1 Calcutta moorings to No. 1 Kidderpur moorings, preparatory to proceeding to sea. The assistant harbour master stated that at 7 A.M., it being the first quarter of the ebb-tide, the ship *County of Berwick* was dropping down the river on the *Ethiopia's* port side, and the steamer falling in towards the buoys, the assistant harbour master put her helm a starboard and turned ahead, but the *Ethiopia* forging out the flood-buoy No. 1 off Kidderpur, caught her on the port quarter, when the assistant harbour master, to save the steamer's propeller from receiving damage, was obliged to turn astern to stop her headway, consequently the buoy slid along the steamer's side and slipped out on the starboard side. No damage to the steamer or buoy. No loss of cargo. No loss of life.

271. The African iron screw steamer SWORDSMAN [of Zanzibar, 720 tons register, no official number, belonging to His Highness the Sultan of Zanzibar], from Bombay to Calcutta, with a general cargo. At 10-45 A.M., on the 27th September, when the steamer was 1 mile N.E. of the Outer lightship, entrance to Bombay harbour, the chief engineer reported that the tubes in the condenser were leaking, whereupon the master stopped the engines and immediately anchored the vessel in the aforesaid position. The engineers at once started to repair, but at 4-45 P.M., after removing about 30 condenser tubes, it was found that it was impossible to proceed to sea with the condenser in such a state. The master accordingly weighed anchor and put back from sea. The Engineer Surveyor to the port of Bombay proceeded on board the *Swordsman* at noon on

the 29th September, for the purpose of ascertaining what part of her machinery had broken down and the cause thereof. The Engineer Surveyor reported that he found a number of the condenser tubes, the whole of which had been drawn for the purpose of cleaning the condenser during the survey, were worn through in places, and a number of the tubes were split up, in fact 18 tubes were found very bad and 7 others almost as bad. These tubes were 9 feet 2 inches long and 1 inch external diameter, and were fitted in by soft wood ferrules. Almost the whole of the tubes had been removed previous to the Engineer Surveyor going on board for the purpose of survey. The chief engineer of the vessel stated that on the 18th September he had concluded that, after having made the voyage to Bombay from Zanzibar, the condenser must either have been leaking or been very dirty from the very indifferent vacuum obtained, and also from the very small quantity of steam condensed. The Surveyor therefore recommended that these tubes, on being removed, should be thoroughly cleaned, and on their being again fitted in the condenser, should be tested; but this did not appear to have been done owing to want of time, as the steamer was timed to sail on a certain date. The whole of the tubes were removed and new ones were fitted in with metal ferrules in lieu of wood, the great evil arising from the use of wood ferrules was the danger of their being left dry and so shrinking and falling out. The remainder of the machinery was in good order with the exception of a few minor defects, which were made good by the vessel's engineers. The Surveyor advised that in order to test the condenser after each tube had been tried by water, a small run for an hour should be made. If the repairs were carried out in a proper manner, and if found satisfactory when tried under steam, the Surveyor was of opinion that the steamer would be perfectly safe to proceed to Calcutta. The *Swordsman,* after having effected her repairs, proceeded on her intended voyage. Value of damage to the steamer not reported; damage to the cargo, if any, not stated. Value of damage to the machinery not reported. No loss of life. (The cause of this casaulty was not reported.)

272. The British Indian brig MOOYDIN [of Colombo, 117 tons register, official number 31080], from Negapatam to Colombo, with a cargo of rice, &c. On the 30th September; the brig was proceeding through the Pámban Pass (Gulf of Manár) under light sail in charge of a pilot; the channel being very narrow and tortuous, a sudden shift of wind caused her to take the ground off the Western buoy in the Sand Bank channel before the anchor held ground. She was subsequently got off with the assistance of the Dredge coolies. Value of damage to the brig not reported. No loss of cargo. No loss of life.

OCTOBER.

273. The British iron screw steamer JUSTITIA [of Barrow, 1,986 tons register, official number 83983], from Calcutta to London, with a cargo of jute, &c. On the 1st October the steamer, in charge of a pilot was proceeding down the Hooghly river; at 6 A.M. whilst the pilot, was turning the vessel at Garden reach, she touched the flat off Matea-bruj, but never stopped her way. She proceeded immediately on her voyage. No damage to the steamer or cargo. No loss of life. (The casualty was accidental.)

274. The British wooden ship RECORD [of Liverpool, 1,722 tons register, official number 85440], from Calcutta to New York, with a cargo of jute, gunnies, seeds, &c. On the 4th October the ship, in charge of a pilot and in tow of the steamer *Retriever,* was proceeding down the Hooghly river; at 2-15 P.M. whilst going down the Bellary channel, taking a central track with 10 feet up at the semaphore, it being half-ebb, the ship took a heavy sheer to starboard, thus causing the tug to sheer to port, so that she passed to the eastward of the Upper Eastern Bellary buoy, the hawsers carrying away the cone from the pole of the

buoy; the *Record*, just as she recovered from the sheer, grounded, parting both hawsers, on the western edge of the Bellary sands; the Bellary tower bearing W.½ S., the Upper Eastern Bellary buoy N.E.½ N., and the Bellary semaphore North. The *Record* floated at 7-45 P.M. after having been aground for 5½ hours, and returned to Kalpi anchorage, where she remained for the night. The ship made no water, and having remained in an easy position whilst aground, the master was of the same opinion as the pilot that the vessel had not sustained any damage. Slight damage to the buoy in consequence of the collision. No damage to the cargo. No loss of life. (The accident was due to the ship *Record* steering badly in shallow water.)

275. The British iron screw steamer CULNA [of Glasgow, 1,469 tons register, official number 80435], from Calcutta to Bombay, *viâ* coast ports, with a general cargo. On the 5th October the steamer, in charge of a pilot, was proceeding down the Hooghly river; at 3-50 P.M., whilst going down the Eden channel during the last quarter of the ebb-tide, she touched the ground very slightly in the Eden channel, but did not stop her way. No bearings were taken; but as far as the pilot could judge it was abreast of the Upper Eastern Eden buoy and nearly in mid-channel. No damage to the steamer or cargo. No loss of life. (The accident was attributed to a change in the channel. The pilot stated that the depth in the channel opposite the Upper Eastern Eden buoy was 3 feet less than that shown on the chart.)

276. The British iron screw steamer JOHN MORRISON [of North Sheilds, 1,286 tons register, official number 84894], from Bombay to Calcutta, with water ballast. On the 6th October the steamer, in charge of a pilot, was proceeding up the Hooghly river; at 11-45 A.M. the steamer, when rounding Fulta point with more than three-quarters flood, the pilot had to give way to a native craft, and in getting back to the channel off the Fulta sand and the Nun buoy, the counter tide caught the vessel's port bow and she took a run for the bank; the helm was put hard-a-starboard and the engines eased, but the steamer not recovering, the pilot reversed full speed, and just as the *John Morrison* was about to gather sternway, her forefoot hit the bank above Fulta point, but she did not remain aground. She came off immediately and proceeded safely up to town (Calcutta). No damage to the steamer. No cargo on board. No loss of life. (The casualty was unavoidable.)

277. The British iron screw steamer PUNJAUB [of Glasgow, 685 tons register, official number 48936], from Cutch Mándvi to Bombay, with a general cargo. It appeared that the steamer was disabled about 45 miles N.W. of Cutch Mándvi whilst on a voyage from Bombay to Kurrachee, and was being towed into Bombay harbour, on the afternoon of the 8th October, by the S.S. *Huzara* belonging to the same Company. Owing to the rudder of the *Punjaub* being damaged, the task of towing her was a difficult one, but by dint of good seamanship on the part of the master and the officers of the S.S. *Huzara* she was brought into the port of Bombay. Whilst, however, the two vessels were at the entrance to the harbour, Malabar point being half way between the Prong's and Kolaba lighthouses, each in charge of a pilot, a collision occurred. The pilot stated that he boarded the *Punjaub,* which vessel was in tow of the *Huzara,* at 1-25 P.M. on the 8th October, when between the Outer lightship and the Sunk rock lighthouse; the tide was then running a strong ebb and there was a light E.N.E breeze, the weather was fine, and the sea smooth. At 2-35 P.M. the *Punjaub,* owing to the very strong tides, took a heavy sheer and nearly recovered her position, when the *Huzara,* which vessel was ahead, stopped and commenced to shorten in hawsers preparatory to the steamers entering the harbour safely; whilst so doing the starboard hawser of the *Punjaub* fouled the *Huzara's* propeller, whereupon the pilot of the latter vessel let go his anchor immediately, and the pilot of the *Punjaub*, being under the impression that the pilot of the

Huzara was holding, dropped the *Punjaub's* anchor under foot in order to prevent a collision as the *Punjaub* had a little headway on; instead of which it was subsequently perceived that the *Huzara* was dropping with the tide quicker than the *Punjaub,* and at 2-40 P.M., the latter vessel's jibboom caught the *Huzara's* after stanchions, &c. The pilot of the *Punjaub* thereupon allowed all the chain to run out, but notwithstanding the two vessels still hung together; after about 10 minutes divers came off and cleared the hawser from the propeller, and both vessels, after receiving a certain amount of damage, got clear and rode to their anchors. The pilot of the *Punjaub* then shortened in cable and waited at her anchor until she was towed further up by the *Huzara.* The Engineer Surveyor to the port of Bombay proceeded out in a steam launch on the same evening with the Superintending Engineer of the British India Steam Navigation Company to the S.S. *Punjaub* in tow of the S.S. *Huzara,* then at anchor between the Sunk rock lighthouse and the Outer lightship, for the purpose of ascertaining, if possible, the extent of damage the *Punjaub* had received. The vessel was lying ahead about three ships' length off the *Huzara* and found that she had lost her propeller, the rudder, &c., after leaving Cutch Mándvi, she at the time drawing nearly 15 feet aft and 14 feet forward, and the ebb-tide was running very swiftly at the time. The Engineer Surveyor was informed that on the *Huzara* coming to an anchor in the port of Bombay, as she had one of the tow lines round her propeller, that she had fouled the *Punjaub,* striking her on the starboard bow and swept everything more or less until she came near the starboard gangway of the *Punjaub.* The Engineer Surveyor reported that he examined the defects, as well as he could, it being then after sunset, and observed the bowsprit damaged, the cathead broken, the forward accommodation ladder smashed, the rail stanchions and bulwarks sprung and smashed, the bridge broken and removed from its place, the forward davit of the starboard aft life-boat broken short off, the life-boat damaged, and the top railing sprung and broken in several places. The *Punjaub* being full of cargo, the exact extent of the damage was not ascertained; the Engineer Surveyor therefore recommended that the vessel be docked after the cargo had been removed. At 2 P.M. on the 17th October the steamer was again surveyed, she having discharged all her cargo, and was lying in the Company's Dry dock at Mázgaon. The Surveyor reported that he found the keel (iron), the rudder and the rudder post gone, the propeller completely gone, also the shaft which had been wrenched off almost square. The hull on the starboard side was then examined, and it was found that one butt of the garboard strake, and a number of rivets right aft, were slightly started abreast the mainmast, and forward of that at the third strake from the garboard four plates were bulged in and cracked very much between the frames; at the second strake from the garboard, four plates were also bulged in; and at the first strake from the garboard two plates were bulged in slightly. These plates varied in length, but several that were measured were found to have been $9' \times 3'\ 4'' \times \frac{5}{8}''$. About 20 feet forward of this at the third strake of the garboard the plate was also bulged in between the frames, and the butts started; 10 feet forward of this at the garboard strake several of the butts had started, and also several of the rivets; also 20 feet forward of this one butt had been started; at No. 2 strake from the garboard there was a heavy bulge about 3 feet forward of this; at the third strake about 3 feet forward of this the plate was bulged in between the frames. Abreast of the main the first plate from the garboard, the butts had started; also the plates next this, chath the butts started slightly; the third strake from the garboard strake ahead of this about 45 feet in length, five plates were bulged in slightly and out of shape; forward of this abreast of the foremast, the garboard strake was bulged in about $\frac{7}{8}$ inch for a length of 15 inches; also the second plate from the garboard strake about the break of the forecastle one plate was bulged in slightly. On

the port side abreast of the after part of the stoke hole at the second and third strake from the garboard strake, two plates in one strake and one plate in the other strake bulged in, and butts started, also a few rivets leaking in the keel. Owing to a quantity of ballast in the hold and coals in the bunker, which were then being removed, the Engineer Surveyor could not ascertain how many, if any, of the frames were broken or damaged in any way. The iron plates forming the hull seemed to have been of very good quality. On the 18th October the Shipwright and Surveyor to the port of Bombay examined the bottom of the *Punjaub* whilst she was lying in the Company's dry dock consequent on her having stranded 5 miles N.N.E. of Jakáo on the Cutch coast. The Surveyor reported that the rudder was carried away to a height of 15 feet from the lower edge of the keel and a portion about 18 inches in length from the top of the pintle broken, but was still hanging to the remaining portion of the rudder; the rudder post with the keel plate in the wake of the aperture of the screw carried away short off close to the stern post with gudgeons and other accompaniments attached thereto; the screw propeller with the screw shaft was broken short off at the stern post and consequently carried away. At the bilge plates on the starboard side No. 1 garboard strake, the third plate commencing from the stern post forward completely bulged in about an inch from the straight line; the fourth plate was also bulged in 3 inches, and the three next to it forward were found to have been in the same state; at No. 2, or the strake next above the garboard, the third plate commencing from the stern post forward was bulged in about 3 inches; the two plates forward of this on the same strake were bulged in 2 inches; and the next to them forward about an inch; at No. 3, or the second strake above the garboard, the third, fourth, and fifth plates commencing from the stern post forward bulged in 3 inches from the straight line, and the sixth, seventh, and eighth plates bulged in from $1\frac{1}{2}$ to 3 inches; at No. 4, or the third strake above the garboard, the third, fourth, and fifth plates commencing from the stern post forward bulged in from $\frac{1}{2}$ to 1 inch, and the three strakes next to them forward from $1\frac{1}{2}$ to $1\frac{3}{4}$ inches from the straight line; about 10 iron frames were broken as far as it was observed since the steamer was not completely opened out for repairs. At the bilge on the port side No. 1, or the starboard strake, two plates in the wake of the funnel bulged in about $\frac{1}{2}$ inch from the straight line; at No. 2, or the strake next above the garboard, two plates in the wake of the funnel bulged in 1 inch from the straight line; at No. 3, or the second strake above the garboard, two plates in the wake of the funnel bulged in 3 inches from the straight line; at No. 4, or the third strake above the garboard, two plates in the wake of the funnel bulged in 3 inches from the straight line. The Surveyor reported that he was unable to state how many limbers were broken or bent in the wake of these plates since the vessel was not entirely opened out for repairs. The rivets in the bottom, particularly from the keel to the turn of the bilge, right fore and aft, seemed to have been loose; the bottom seemed to have been completely put out of shape, and the Surveyor was of opinion that the steamer had sustained greater damage than could be then ascertained, and accordingly suggested the advisability of the Port Officer moving the Government to order a Court of Inquiry into the matter, as the damage done to the *Punjaub* was very serious. Value of damage to the S.S. *Punjaub*, ₹ 11,769; cargo not reported. No loss of life. The *Punjaub* in consequence of the heavy damage had no repairs effected, but was subsequently sold as a wreck at Bombay. (It was reported that the accident could have been avoided had the pilots in charge of both vessels not stopped to shorten in the hawsers, or if the pilot of the *Punjaub* had not let go the anchor.)

[A Departmental Committee of Inquiry was held at the Port Office, Bombay, on the 13th October, for the purpose of inquiring into the cause which led to the collision of the S.S. *Punjaub* with the S.S. *Huzara*. After hearing all the evidence that was brought forward in the case, the Committee were of opinion

that the collision was caused in the first instance by the pilot in charge of the *Huzara* not letting go his anchor immediately he found that she had lost headway after stopping to shorten in hawsers, and that the pilot in charge of the *Punjaub* also contributed to the accident by letting go his anchor instead of allowing the vessel to drift clear. The Committee found both pilots were guilty of an error of judgment.]

The Trustees of the port accordingly directed that the pilot of the *Punjaub* be fined ₹50.

278. The British iron screw steamer HUZARA [of Glasgow, 1,344 tons register, official number 82297], from Kurrachee to Bombay, with a general cargo. It appeared that the steamer was towing the S.S. *Punjaub* from the Gulf of Cutch into Bombay harbour. The pilot stated that at 2-20 P.M., on the 8th October, he stopped the *Huzara* for the purpose of shortening the hawsers, with which she was towing the *Punjaub* preparatory to her entering the harbour. Whilst off Malabár point, half way between the Prong's and the Kolaba lighthouses, the *Huzara's* engines had been stopped about 20 minutes before the accident occurred, and when the *Huzara* during the progress of that operation lost her headway, she dropped down rapidly towards the *Punjaub* and one of the hawsers got under the propeller, consequently the *Huzara's* anchor was let go and about the same time the *Punjaub's* anchor was let go, which the pilot of the latter vessel should not have done; and at 2-40 P.M. the *Huzara* fouled the *Punjaub,* her starboard quarter striking the latter vessel's bows. The weather was fine with a light wind from the E.N.E., the tide was ebb and running strong, and the sea was smooth. Value of damage to the S.S. *Huzara,* ₹600; cargo not reported. No loss of life. (It was stated that the casualty could have been avoided if the pilot in charge of the *Huzara* had dropped his anchor sooner, or kept the vessel moving slowly ahead.)

279. The British iron screw steamer MADURA [of Glasgow, 1,266 tons register, official number 68080], from Calcutta to Rangoon, Maulmain, and the Straits, with a general cargo. On the 9th October the steamer, in charge of a pilot, was proceeding down the Hooghly river; at 8 A.M., whilst the pilot, was bringing the steamer to anchor off Budge-Budge, she unfortunately lost the starboard anchor and about 65 fathoms of chain about the middle of the river, a little below the Bowreah mills. No damage to the steamer or cargo. Cost of recovering the anchor and chain not reported. No loss of life.

280. The British Indian iron paddle steamer WASHISTI [of Glasgow, 83 tons register, official number 89937], from Vengurla to Goa, with 75 passengers, but no cargo. The master of the steamer stated that the *Washisti* was bound South, and the padow *St. Antonio* was beating up Northward, when at midday, on the 9th October, whilst between Redi and Vengurla (Bombay coast) the padow failed to cross the bows of the steamer on account of the wind falling light, and although strenuous efforts were made by the crew of the steamer, in order to prevent a collision, the *Washisti* ran into the padow *St. Antonio,* and sank her. Immediately after the accident the steamer's boats were lowered, and the crew of the padow were picked up and landed at Vengurla. No damage to the steamer. No loss of life. (It was reported that the accident was unavoidable, inasmuch as it was caused by the wind having fallen light.)

(For an account of the St. Antonio see Wrecks No. 54.)

281. The British iron screw steamer BUSHEER [of Glasgow, 587 tons register, official number 48901], from Calcutta to Chittagong, with a general cargo. On the 11th October the steamer, in charge of the master (who was also a licensed mail steamer pilot for the port of Chittagong), was proceeding up the Kornafuli river (Chittagong coast); at 6-30 A.M. the master, to avoid a collision with a Native brig, took the vessel out of the channel, when she grounded off Moish khali. At 10 A.M. the steam-tug *Salween* went to her

assistance and immediately commenced towing the *Busheer* from her stern, but could not move her. The *Salween* after casting off the *Busheer's* rope turned round and anchored for the purpose of making another attempt at next high-water. Subsequently an anchor and 45 fathoms of chain was laid out by the port heave-up boat, and the steam launch *Active* was anchored astern of the *Busheer* in order to prevent the latter vessel driving up with the next flood-tide. This then held the *Busheer* until she floated at 7-30 P.M. the same day, when she was towed by the tug *Albert* up to town (Chittagong). She was aground for 13 hours. The *Busheer* safely proceeded down the river for the Burman coast ports early the next morning. Value of damage to the *Busheer*, ₹280. No cargo lost. No loss of life. (The accident was unavoidable.)

[A Departmental Committee of Inquiry was held at the Port Office, Chittagong, on the 25th October, for the purpose of inquiring into the conduct of the master of the S.S. *Busheer*, who was also a licensed pilot for the port of Chittagong, regarding the grounding of that vessel. The Committee recorded that they were of opinion that the master (who was a special mail steamer pilot) committed an error of judgment in not waiting below until all the vessels had swung ebb, as they considered that he would then have found the channel clear. The Committee also considered that the pilot acted in the best manner he could have done under the circumstances when he found the steamer amongst so many brigs and in danger of collision. The *Busheer* having grounded on the bank where vessels were placed to clean their bottoms, the Committee observed that they felt confident that the steamer had received no serious damage from the said accident. They were further of opinion that the case would be met by the pilot being warned to be more careful in future. The Committee warned the pilot accordingly.]

The finding of the Departmental Committee of Inquiry was approved of by the Commissioner of Chittagong.

282. The British iron paddle steamer SALWEEN [of Maulmain, 100 tons register, official number 7491] was generally employed at the port of Rangoon as a steam-tug. On the 11th October the tug had proceeded down the Kornafuli river (Chittagong coast) from off the town for the purpose of towing the mail steamer *Busheer*, which vessel was aground on the sands off Moish khali; the tug then commenced towing the steamer from her stern, but could not move her. At 10 A.M., after casting off the rope, the master of the tug attempted to turn the *Salween* between the line of native brigs and the vessels at the buoys; owing to slack water she would not answer her helm, and consequently fouled the brig *Stree Ranganaikuloo*, lying at anchor alongside the American barque *Fannie Scotfield*. An anchor and 45 fathoms of chain was then laid out by the port heave-up boat, and the steam launch *Active* was anchored astern of the *Busheer* in order to prevent the latter vessel driving up with the next flood-tide. This held the *Busheer* until she floated at 7-30 P.M. the same day, when she was towed by the tug *Albert* up to town (Chittagong). An old boat, which was hanging on the tug's davits, got smashed besides receiving other minor damage. Value of damage to the *Salween*, ₹150. No loss of life. (The casualty was unavoidable.)

283. The British Indian schooner STREE RANGANAIKULOO [of Chittagong, 111 tons register, official number 20 of 1883], from Narainganj to Chittagong, with a cargo of jute. On the 11th October the schooner was lying at anchor off Moish khali in the Kornafuli river (Chittagong coast), discharging her cargo on board of the barque *Fannie Scotfield*. At 11 A.M. as the tug *Salween*, after endeavouring to tow the S.S. *Busheer* off the ground, was coming back to her anchorage, the master of the steam-tug steered her too close to the schooner in order to turn her head to the ebb, when she unfortunately came into collision with the *Stree Ranganaikuloo*. Value of damage to the

schooner, ₹150. No loss of cargo. No loss of life. (The casualty was unavoidable.)

284. The British iron screw steamer CITY OF VENICE [of Glasgow, 2,091 tons register, official number 71726], from Bombay to Liverpool, with a general cargo. At about 8-30 P.M. on the 13th October, when 4 miles W.S.W. of the Outer lightship, entrance to Bombay harbour, after the pilot had been discharged near the schooner, the chief engineer reported to the master that a peculiar noise was heard in the high pressure cylinder, and a little later on a number of heavy knocks, whereupon the engines were stopped and the vessel brought to an anchor, and on examining the machinery it was discovered that the piston and packing ring were broken. The master subsequently put back from sea for survey and repairs. The Engineer Surveyor to the port of Bombay, with the Deputy Port Officer, proceeded in a steam launch on the following morning to the steamer, which was lying at anchor some 3 miles to the westward of the Outer lightship, for the purpose of ascertaining what part of her machinery was injured, and the extent of the damage sustained thereby. The Surveyor reported that as the vessel's engineers were busy in trying to disconnect the piston and the rod from the cross head, he waited on board for some time with the view of ascertaining, if possible, the cause of the breakdown, but finding their repeated endeavours to do so were unsuccessful, the Surveyor left the steamer after giving orders to the chief engineer to heat it. The Surveyor proceeded on board again on the 15th for the purpose of further examining the engines, and was informed that the engineers of the vessel had got it adrift on the previous night. After closely examining the whole of the cylinder and the valve face, the Surveyor stated that he could not find anything further disturbed, broken, or cracked, or in any way damaged, except that the piston and the packing ring were broken. The chief engineer of the steamer stated that on the *City of Venice's* last voyage to China, whilst off Sokotra, part of the high pressure valve face broke away, and that as much of the broken parts as could be found were removed at the time and the vessel continued her voyage to China homewards, and again out to Bombay. Three of these pieces with five pieces of pins and one iron washer were found under the piston and in the bottom part of the cylinder at the steam port, these being $\frac{5}{8}$ inch thick, and the piston having only $\frac{3}{8}$ inch clearance at bottom, was of themselves sufficient to break any piston and thereby cause very serious damage. The Surveyor measured the whole of the parts, and found that the thickness of the material was just up to the Board of Trade requirements. He was, therefore, of opinion that the cause of the piston and ring having broken in the manner it had done was through the several pieces of the valve face having worked away under the piston, and the clearance being less than the thickness of those pieces. Finding after a careful examination that it would not be safe or desirable to patch or repair the piston, the Surveyor advised that the piston should be renewed, and when this was effected and the same properly fitted, he was of opinion that the steamer would be as seaworthy as formerly, and able to continue on her voyage to the United Kingdom. The *City of Venice* sailed again from Bombay on the 25th October after having repaired her machinery. Value of damage to the steamer not stated. Damage to cargo, if any, not reported. Value of damage to the machinery, ₹3,000. No loss of life. (The casualty was unavoidable).

285. The British iron screw steamer MECCA [of Glasgow, 936 tons register, official number 68059], from East African ports and Aden to Bombay, with 120 passengers and a general cargo. The master stated that at 4 o'clock on the evening of the 15th October the *Mecca* weighed anchor and proceeded in charge of a pilot out of Aden harbour (South coast of Arabia), and a quarter of an hour afterwards she stopped, discharged the pilot off the lightship, and went full

speed ahead, when he observed the same Company's steamer *India,* two points on the portbow, bound in, distant about 2½ miles, steering approximately on the N.E. by N. course. The *Mecca* was sailing on a W.S.W. course, and the engines were going at the rate of 6 knots an hour; the master was in charge with the first officer on the bridge. The master of the *Mecca* then directed the course to port, rounding Rás Tarshine, the helm being to the starboard; the *Mecca* was coming to port, and heading about S.S.E. The *India* then being about two points on her starboard bow, and from the relative courses of the two vessels, the master of the *Mecca* concluded that they would pass clear. He was about to steady the helm, when he observed the *India* suddenly altering her course to starboard. The master stated that this happened at 4-30 P.M., when the two vessels were then too close for him to have attempted to port the *Mecca's* helm with a view to pass the *India* on the port side. Seeing that a collision was inevitable, the master put the engines of the *Mecca* full speed astern, but to no avail; and four minutes afterwards, when half a mile S.W. by S. of Rás Tarshine, in the Outer harbour of Aden, the lightship bearing N.35° E., and Rás Tarshine S.49° E. approximately, the *Mecca's* stem came into collision with the S.S. *India,* striking the latter vessel at the fore-rigging on the port side. The *Mecca* at the time of the accident had little or no way on. After clearing the *India,* the engines were stopped and the wells sounded; but finding that the *Mecca* was making no water, the master instructed the first officer, who was on the bridge with him when the collision happened, to go forward and see what damage was done. The first officer, after examining the steamer, thereupon reported that the *Mecca's* stem was partially carried away from a little below the water line to the main deck, but there were no other apparent damage. The master whereupon proceeded full speed ahead, turning the steamer round and hoisted the flag for a pilot; at 5 P.M. the *Mecca* stopped, and after receiving a pilot on board proceeded ahead to the Inner harbour, when an hour afterwards she was moored with both anchors, the stem being fast to a buoy. On the 16th October the Surveyors examined the *Mecca* for the purpose of ascertaining the damage done to that vessel by the collision with the S.S. *India.* The Surveyors recommended that the steamer should be tipped until all the water be pumped out of the fore-peak; 3¼ inches plank bulkhead to be fitted and caulked before the forward knee frames, and filled in before all solid with cement to the 'tween deck knee stringer plate; 6 straps, 6 inches wide and ⅜ inch thick, to be rivetted on the outside round the stem and filled in with soft wood. The *Mecca,* after having been temporarily repaired, sailed again on the 21st October. The Political Resident at Aden reported that the *Mecca* was seaworthy after the execution of the repairs advised by the Board of Survey in their report, and that the Port Officer re-surveyed the vessel and endorsed her a certificate as fit to proceed to Bombay. The British India Steam Navigation Company's Agents at Aden, in giving notice of the casualty to the Political Resident, stated that both the Company's vessels had suffered no material damage, and consequently they presumed no inquiry was necessary, and asked the *India* be permitted to proceed on her voyage. If it was contemplated to have an inquiry, both the steamers would have to be detained, and in consequence the Company would suffer further heavy losses, on which account they should have strongly to protest against it, the *India* being ready to proceed on the evening of the 16th October, and the *Mecca* three days later. On the forenoon of the 8th November, the Engineer Surveyor to the port of Bombay proceeded to the *Mecca,* then lying in the British India Company's dry dock, for the purpose of inspecting and reporting on the damage sustained by that vessel in consequence of the collision with the *India,* as it was impossible to ascertain the extent thereof, whilst she was lying in the stream in Aden harbour. The Engineer Surveyor reported that he found the stem of the *Mecca* from the top rail to the ninth strake, for a depth of about 23½ feet, broken away from the

plates forming the bows and bent over to port, on the top side about 24 inches embracing nine strakes of plates. These plates were 2½ feet wide and of various lengths, the first break or abrasion being at the third strake from the garboard strake, and was about the 9 feet mark, as near as it could have been ascertained. The stem, which was of iron, was 8′ × 2¾′, it could not be ascertained if it was either cracked or broken or not. The Surveyor stated that the first officer of the *Mecca* informed him by his rough log-book that the steamer was leaving Aden harbour about 1½ to 1¾ miles from the lightship on the afternoon of the 15th October, when she fouled the same Company's steamer *India* at the fore-rigging, which vessel was then coming into Aden harbour. The Surveyor examined the *Mecca* very carefully inside in the whole of the compartments in the forepeak, but did not find that any frames were cracked, started, or broken, in fact not even upset, but that they were in the Surveyor's opinion in as perfect a form as when first built. To enable the *Mecca* to be in as efficient a state as she was formerly, the Surveyor advised that at least 20 plates be cut out from her bows to allow of the stem (iron) being removed at the scarph for repair or renewal; the hawse pipes, chock lining, and web plates also to be removed. The whole of the broken and defective bows had been cemented and bolted up to enable the steamer to reach Bombay; the full extent of the damage, if any, forward of the web plates could not be ascertained until the plates were removed, when a farther survey should be made. The Shipwright Surveyor to the port of Bombay, in conformity with Article 15 of the Rules under Acts II of 1864 and IV of 1873, consequent on the collision of the *Mecca* with the *India* in the Outer harbour of Aden, proceeded to British India Company's dock in order to survey the *Mecca* on the 8th and 9th November, and found the steamer was lying in the dry dock blocked and well shored up. He stated that the stem was torn off from the top or knightheads, from the starboard plates to the 9 feet water mark, bending, twisting, and turning right round on the port side; nine plates on both sides from the top being torn up, some distance about 8 inches from where they were rivetted on to the stem; the frames and seames, as far as was seen, did not seem to have been started, as the steamer's bows were properly stayed by bolts and nuts and filled up with cement. This measure was adopted at the recommendation of a Committee of Survey held at Aden. The damage to the steamer *Mecca* appeared to the Shipright Surveyor to have been serious and extensive. (Value of damage to the steamer *Mecca,* not reported. Damage to cargo, if any, not stated. No loss of life. (No Court of Inquiry was held by the Government, but it was reported that the primary cause of the collision was the altering of the *Mecca's* course and thereby crossing the *India's* bows; had the vessels remained on their respective courses until they passed, no accident would have occurred. The master was found to have been in fault by his employers, and was consequently suspended from duty.)

[The Government Solicitor was of opinion that the Governor of Bombay had power to direct an investigation and to fix the place for making the same under section 7 of Act V of 1883, but before dealing with the matter, all notices, reports, or proceedings given or taken at Aden, should be placed before the Government, and the whereabouts and the movements of the S.S. *India* and her master, the officers, and the crew, who could give material evidence, should be ascertained. The Port Officer of Bombay replied that the Agents reported that the *India* was then at London, and that her master, the officers, and the crew were still on board that vessel as far as they were aware, and that the steamer in question was employed on the Calcutta line, and was not likely to visit Bombay. The Solicitor observed that if the Governor of Bombay was of opinion that an inquiry should be held, he considered, in view of the place of such investigation being fixed, it should be ascertained whether the master, the officers, and the crew of the *Mecca,* capable

of giving material evidence in the matter, were likely to return to Aden or proceed to London; and that since the *India* was in London, the Board of Trade should be communicated with and their views ascertained as to where the inquiry should be held. It was obvious that no Court could satisfactorily deal with the case unless it had before it the evidence of persons from both the steamers, and were a Court constituted at Bombay to investigate the matter, it would seem that only the evidence of those on board the S.S. *Mecca,* and of the officials who surveyed the vessel in Bombay harbour, could be placed before it. At Aden possibly, the evidence of those on board both steamers might be obtained, for both vessels would probably touch at Aden ere long. If any Court was to be held, it would be well to appoint persons, as members of such Court, who would be able to attend to investigate the case from time to time, having regard to the possibility of the witnesses being examined at long intervals. The Agents might be willing to make arrangements, so that the persons on board of each vessel, who could give material evidence, should be in one place at the same time with the view to an inquiry being held in the matter. The Agents to the British India Company replied that the *India* being on the London and Calcutta line and the *Mecca* on the Bombay, Aden, and East African line, it would be practically impossible to arrange for the two steamers to meet at Aden, so as to allow of an inquiry being held into the circumstances of the collision, and even if the vessels did meet, the master and the officers on board the *Mecca* would not be the same as at the time of the collision, and it was possible that the officers on board the *India* might be changed also. A private Court of Inquiry had been held by the Agents at Bombay, and another by the Agents at London, and the conclusion arrived at in both Courts was the same, *viz.,* that the *Mecca* was entirely and solely to blame for the collision. The master, who was then in charge of the *Mecca,* had been consequently suspended from command by his employers for a period of 2½ months. He was, however, reinstated on the 16th January 1885, and appointed to the charge of the S. S. *Chilka* of the same Company's fleet. The Port Officer of Bombay reported that, under the circumstances stated, it appeared impossible to hold the desired Court of Inquiry on the case, as the master and the officers of the *Mecca* had been shifted, and probably those of the *India* also. Even if it were possible to assemble the two vessels at Aden, the inquiry, it was presumed, could not be held as the master of the *Mecca* had been suspended and was off duty. The Government might therefore consider it desirable to take no farther steps in the matter except to report the collision in detail to the Board of Trade. The Honourable the Advocate General recorded that he considered that it was competent for the Governor of Bombay under section 7 of the Indian Merchant Shipping Act V of 1883, to appoint a Special Court to investigate the circumstances of the collision between the *Mecca* and *India,* which occurred at Aden on the 15th October, and to fix the place where such investigation should be made. But he also considered that it was impossible to make such investigation with any useful result. The opportunity for so doing was whilst both vessels were at Aden immediately after the accident, with the officers and crews on board, who were aboard at the time of the casualty. He remarked that he could see no way in which the simultaneous attendance of those officers and crews could be obtained, and in his opinion an investigation into the causes of a collision upon the evidence of the officers and crew of one only of the vessels in question would be worse than useless. The Advocate General therefore considered that it was desirable for the Government to take no farther steps in the matter except to report the collision to the Board of Trade, as suggested by the Port Officer. The master of the *Mecca* had been found in fault by his employers, and had been visited with a penalty probably as severe as would have been inflicted on him in consequence of the finding of any Court. If he felt himself aggrieved by such

decision, it was for him to take such action in the matter as he might be advised.]

As it was represented by the Agents of the British India Company that the master and officers of the S.S. *Mecca* were not the same as those at the time of the collision, and as the Hon'ble the Advocate General had advised that no farther steps should be taken in the matter, and also as the collision was not of a serious character, the Governor of Bombay directed that a Court of Inquiry should be dispensed with in the present case.

286. The British iron screw steamer INDIA [of Glasgow, 2,633 tons register, official number 85861], from Calcutta to London, with a general cargo. At 4-40 P.M., on the 15th October, the *India,* when half a mile S.W. by S. of Rás Tarshine, in the Inner harbour of Aden, the lightship bearing N.35° E. and Rás Tarshine S. 49° E. approximately (South coast of Arabia), was run into by the S.S. *Mecca.* The master of the S.S. *India* stated that his vessel was steering on a N.W. course for the purpose of coming to an anchorage in the Aden roadstead; the engines were going at the rate of 11 knots an hour, when he observed the *Mecca* on a W.S.W. course on her starboard bow crossing to port. The master of the *India* seeing that a collision was inevitable, he reversed the engines full speed astern, going at about 2 knots an hour, and gave three blasts on the whistle, but it proved unsuccessful. The Surveyors stated that on the 16th October they proceeded on board the *India* for the purpose of giving their opinion regarding the damage done to that vessel when in collision with the S.S. *Mecca.* They reported that they examined her outside—the vessel being in quarantine—and considered that there was no risk incurred by the *India* proceeding in her damaged condition as far as Suez at that season of the year, where the necessary repairs should be executed. The steamer accordingly left for Suez on the evening of the same day. The *India* was struck on the port side near the fore-rigging, and the plates dented in from the spar deck to about 8 inches below the water line; the plates in one or two places between the spar and main decks burst, and mouldings broken. Value of damage to the steamer *India,* not reported. Damage to the cargo, if any, not known. No loss of life. (It was reported that the collision might have been avoided had the master of the *Mecca* observed the Rule of the Road; the weather was fine, with a light breeze from the S.E.)

287. The British iron screw steamer KING ARTHUR [of Bombay, 1,047 tons register, official number 70575], from Bushire to Basra, with 140 passengers and a general cargo. The master stated that the *King Arthur* weighed anchor at 4-45 P.M. on the 16th October, and proceeded up the Basra river (Persian Gulf); the helm was put hard to starboard, but owing to the strong eddies catching her port bow, she would not answer her helm, and was set towards the *Mobile.* On the master finding a collision inevitable, he immediately ordered the engines to be put full speed astern and the helm reversed, but before she gathered sufficient sternway, she dropped upon the *Mobile* at about 5 P.M., whilst the latter vessel was lying at anchor at the entrance to the Basra river; the *King Arthur* thereby doing considerable damage to the *Mobile's* port gangway, the covering rail, and a portion of the wooden bulwark, also two of her upper plates. After the accident, the engines of the *King Arthur* were at once stopped, and the vessel made fast to the *Mobile.* The master of the *King Arthur* reported that the damage to the *Mobile* was caused by the former vessel's starboard anchor stock coming in contact with the *Mobile's* port side abreast the after-cargo hatch. The *King Arthur* had only her anchor stock sprung and bent. Estimated value not reported. No loss of cargo. No loss of life. (It was reported that the casualty could have been avoided had the *King Arthur* been properly navigated.)

288. The British iron screw steamer MOBILE [of Bombay, 916 tons register,

official number 82278], from Bushire to Basra, with a general cargo. It appeared that both vessels belonged to the Bombay and Persia Steam Navigation Company; the *Mobile* was lying at her anchor on the 16th October at the entrance to the Basra river (Persian Gulf), and the S.S. *King Arthur* had weighed anchor and was proceeding up the river when at 5 P.M., in consequence of the latter vessel being improperly navigated, she fouled the *Mobile*, striking her on the port side abreast the after-cargo hatch with her starboard anchor. On the 6th November the Engineer Surveyor with the Shipwright Surveyor to the port of Bombay made a special survey of the S.S. *Mobile* to ascertain the damage done consequent on the collision with the same Company's steamer *King Arthur*. They reported that the three top or sheer strake plates $11'4'' \times 3'10'' \times \frac{3}{8}''$ bulged in by the collision from $1\frac{1}{2}$ to 2 inches and broken in places with butt strap and half round iron mouldings, to be renewed; the frames in the wake of those plates more or less damaged, the extent of which was not ascertained until the plates were removed; 43 feet of the fife rail $8' \times 3''$, three awning and five bulwark stanchions with fittings with double intermediate iron rail belonging to the cargo gangway broken and carried away, to be renewed; four side scuttles chafed, to be removed and re-fitted; two glasses in two of these scuttles broken, to be replaced by new ones. The Surveyors recommended that the three damaged plates should be removed to admit of the frames being examined and reported upon. The whole of the abovementioned damage was on the port-side abreast the after-cargo hatch. The main water-ballast tank was reported to have been badly damaged and leaking excessively, so much so that the leakage could not be kept free by the pumps. The Surveyors advised that the cargo be discharged and the steamer be placed in dock for further examination. The *Mobile*, after discharging her cargo, was taken into the Peninsular and Oriental Steam Navigation Company's Dry dock on the 9th November, and on the following day she was again surveyed. The Surveyors after a careful examination reported that they found the sixth plate below the gunwale or sheer strake $13' \times 10'' \times \frac{5}{8}''$ right in the wake of the mainmast and in the main water ballast tank (which held about 170 tons of water) on the port side near the top was broken through. This crack ran 9 inches fore and aft and 7 inches vertically in between the frames which did not appear to have been damaged in any way; the Surveyors advised that that plate be removed and replaced by a new one, which was the only defect of the hull below water. If the above recommendation were carried out satisfactorily, the Surveyors were of opinion that the *Mobile* would again be rendered seaworthy in every respect. Value of damage to the steamer and cargo not reported. No loss of life. (The casualty was caused by negligent navigation on the part of the master of the S.S. *King Arthur*.)

289. The British Indian wooden brig AUTHILETCHMY [of Negapatam, 154 tons register, official number not reported], from Tuticorin to Negapatam, with ballast. On the 17th October the brig was lying at single anchor, with two watchmen on board, in the Kundugal Gut, preparatory to proceeding through the Pámban Pass (Gulf of Mánar), when at 2 A.M., during a hard gale of wind from the southward with heavy rain, the anchor dragged and the brig took the ground on the sands off Kundugal point, but was subsequently got off. No damage to the brig. No cargo on board. No loss of life. (The casualty might possibly have been avoided had more men been on board to let go the other anchor; the tindal and nine of the crew being on shore at the time.)

290. The British Indian wooden brig MOHIDIN BUX [of Tuticorin, 198 tons register, official number not reported], from Cocanada to Pámban, with a cargo of rice, paddy, raggi, &c. On the 17th October the brig was lying at single anchor in the Kundugal Gut preparatory to proceeding through the Pass to Pámban (Gulf of Mánar), when at 3 A.M., during a hard gale of wind from the southward, with heavy rain, the anchor dragged, the tindal paid out

chain immediately, but notwithstanding, the brig grounded on the sands off Kundugal point; she was subsequently got off by the Pilot schooner No. 3. No damage to the brig. No loss of cargo. No loss of life. (The casualty was unavoidable.)

291. The British Indian brig BOOGARV MOIDIN SAMDANY [of Madras, 99 tons register, official number not reported], from Tranquebar to Colombo, with a cargo of animal bones. On the 17th October the brig was lying at single anchor in the Kundugal Gut (Gulf of Mánar), waiting for a favourable wind to sail to Colombo; at 2-30 A.M., in consequence of a hard gale of wind from the southward with heavy rain, the anchor dragged, when the tindal paid out cable immediately, but notwithstanding, the brig grounded on the sands off Kundugal point; she was subsequently floated off with the assistance of the Pilot schooner No. 3. No damage to the brig or cargo. No loss of life. (The casualty was unavoidable.)

292. The British Indian dhoney KATHALIN [of Pámban, 17 tons register, official number not reported], from Rámesvaram to Pámban, in ballast. On the 17th October the dhoney was lying at single anchor in the basin of the Sand Bank channel (Gulf of Mánar), with no one on board; at 2 A.M., during a hard gale of wind from the southward, with heavy rain, the anchor dragged and the dhoney grounded on the sands near Mundel point, but was subsequently floated off with the assistance of the Pilot schooner No. 4. Little or no damage to the dhoney. No cargo on board. No loss of life. (The casualty might possibly have been avoided had the crew remained on board to let go another anchor and also to pay out more cable).

293. The British Indian wooden brig TELEGRAPH [of Pámban, 166 tons register, official number not reported], from Negapatam to Pámban, with a cargo of paddy, rice, and gram. On the 17th October the brig was lying at single anchor in the basin of the Sand Bank channel (Gulf of Mánar), waiting to discharge her cargo; at 3-30 A.M., during a hard gale of wind from the southward, with heavy rain, the anchor dragged, the tindal paid out cable immediately, but notwithstanding, the brig grounded on the sands near Mundel point; she was subsequently floated off with the assistance of the Pilot schooner No. 7. Little or no damage to the brig or cargo. No loss of life. (The casualty was unavoidable.)

294. The British Indian wooden brig THANALEKSHMI [of Pámban, 167 tons register, official number 6 of 1884], from Colombo to Negapatam, with a cargo of gunny bags. On the 17th October the brig was lying at anchor in the port of Kilakarai (Gulf of Mánar), when at 6 A.M., owing to strong S.W. winds, the brig *Meeramadan* dragged her anchor and struck against the brig *Thanalekshmi,* thereby hooking the mooring of the latter vessel, and breaking her hawser (cable); the *Thanalekshmi* drifted on to the beach about 150 yards to the eastward of the Custom house. The brig was lightened by discharging cargo, and after having unshipped 30 bundles of the cargo, she was hauled off and was anchored in the channel in a proper berth. Little or no damage to the brig and cargo. No loss of life.

295. The Cingalese brig MEERAMADAN [of Colombo, 88 tons register, official number 31083]; from Kilakarai to Colombo, with a cargo of fuller's earth. On the 17th October the brig was lying at anchor in the port of Kilakarai (Gulf of Mánar), when at 6 A.M., owing to strong S.W. winds, she dragged her anchor and struck against the brig *Thanalekshmi,* and, after having got clear of her, she drifted on to the beach about 200 yards to the East of the Custom house. The *Meeramadan,* after having been lightened of about 200 bags of her cargo, was hauled off and was anchored in deep water. Value of damage to the brig *Meeramadan,* ₹50. Slight damage to the cargo. No loss of life.

296. The British Indian boat MOHIDIN BUX [of Pámban, 20 tons

register, official number not known], from Koyalpatnam to Pámban, in ballast. On the 17th October the boat was lying at anchor in the port of Kilakarai (Gulf of Mánar), when at 6 A.M., owing to strong S.W. winds, she dragged her anchors and went ashore, about 50 yards from the Custom house. She was subsequently hauled off and was moored in a proper place in the anchorage. Little or no damage to the boat. No cargo on board. No loss of life.

297. The British iron screw steamer INCHGARVIE [of Liverpool, 1,724 tons register, official number 86264], from Newcastle-on-Tyne to Bombay, with a cargo of coals. At 9 A.M., on the 22nd October, the steamer when to the North of Sokotra island, in latitude 14° N., longitude 52° E. (Arabian sea), met with an accident to her machinery in consequence of the low pressure piston and the junk ring breaking. The master stated that the steamer was steering on an easterly course with no sails set, and that whilst passing the island of Sokotra, she experienced a cyclone. No damage to the steamer or cargo. Value of damage to the machinery, ₹2,000. No loss of life.

298. The British Indian iron steamer CUTCH [of Hull, 1,123 tons register, official number 88178], from Aden to Bombay, with 11 passengers and a general cargo. The master stated that on the 24th October the steamer, when 200 miles Eastward of Aden, in latitude 13.°0′ N., longitude 48° 38′ E. (Gulf of Aden), encountered a moderate gale from the N.E. and had to put back into Aden, throwing overboard about 32 tons of coals which were on deck, for the purpose of easing the vessel, which was labouring heavily and shipping large quantities of water over all fore and aft. Value of damage to the steamer not reported; cargo, ₹6,000. No loss of life.

299. The British iron screw steamer BRANKELOW [of Liverpool, 1,660 tons register, official number 86253], from Suez to Bombay, with a cargo of coals. On the 25th October the steamer was proceeding down the Red sea, when at 4-35 P.M., Mokhá mosque bearing N. 65° E., distant about $4\frac{3}{4}$ miles, she touched on the $2\frac{1}{4}$ fathom patch. The weather was fine and clear with a gentle breeze from S.S.E.; it was quarter ebb and the sea was moderate, flowing to N.N.W. She was aground for 11 hours, and at high-water the next morning she backed off without damage or lightening. No damage to the cargo. No loss of life. (The master attributed the cause of the stranding to the $2\frac{1}{4}$ fathom patch having been incorrectly placed on the Admiralty chart.)

The Port Officer, Bombay, reported that as the Surveyors to the port had examined the S.S. *Brankelow,* and had found her sound, there appeared no necessity for assembling a Marine Court of Inquiry on the case.

The Governor of Bombay, after a perusal of the papers relating to the grounding of the S.S. *Brankelow* off Mokhá, in the Red sea, remarked that no action appeared necessary.

300. The Burman schooner OUNG BAN [of Rangoon, 70 tons register, official number not reported], from Rangoon to Chittagong, with a cargo of sundries. On the 30th October the schooner met with a strong gale when off the mouth of the Gonah creek, near Kutubdea (Chittagong coast), and at 12 P.M. the foreyard, the topmast, and the topgallantmast were carried away. Value of damage to the schooner, ₹200. No loss of cargo. No loss of life.

301. The British iron screw steamer COMMILLA [of Glasgow, 550 tons register, official number 73799], from Rangoon to Calcutta, *viâ* Burman ports and Chittagong, with 75 passengers and general cargo. On the 31st October the steamer was proceeding up the Kornafuli river in charge of a pilot; at 10-35 A.M., whilst between the two Outer bar buoys (Chittagong coast), a Native brig (name unknown) had dragged her anchors, in consequence of strong cyclonic winds from the S.S.E., into the fairway, thus blocking up the channel, and as the steamer came up her port quarter grazed the brig's side. The *Commilla*

after striking the brig swung across and thus got clear, when she safely proceeded up to town (Chittagong). The only damage the steamer received was four saloon ports carried away, the estimated value of which was ₹20. No damage to the cargo. The damage to the Native brig not reported. No loss of life. (The collision, it was reported, was caused by the cyclone.)

NOVEMBER.

302. The British Indian wooden brig SHEKENDAR SHA [of Chittagong, 337 tons register, official number 15 of 1880, age about 21 years], from Narainganj to Chittagong, with a cargo of jute. On the 1st November the brig was lying at anchor alongside the ship *Charles Worsley* off the Kumar khali, in the Kornafuli river (Chittagong coast), for the purpose of discharging her cargo, when at 3 P.M., during a strong gale, owing to the rottenness of the brig's hawser, it parted and she fouled the *Charles Worsley;* she subsequently at 3-30 P.M. dragged her anchors and drifted on to the brig *Futtehul Munnan Robia,* thus causing a collision. Value of damage to the brig *Shekendar Sha,* ₹600. No damage to the cargo. No loss of life. (The collision, it was reported, was caused by the brig *Shekendar Sha* not having a sufficient number of men on board at the time of the accident, and also owing to her not being provided with better gear.)

303. The British iron ship CHARLES WORSLEY [of Liverpool, 1,359 tons register, official number 78827], from Chittagong to Dundee, with a cargo of jute. On the 1st November the ship was lying at No. 6 moorings in the Kornaful river (Chittagong coast), loading her cargo of jute from on board the brig *Shekendar Sha,* which was fast alongside. The master of the ship stated that he ordered the crew of the brig to leave the *Charles Worsley,* and anchor clear of her two hours before the cyclone commenced, and notwithstanding being repeatedly warned to go on shore and get men to remove her, they refused to do so, consequently at 3 P.M., her hawsers being insufficient to hold her, they parted and the brig *Shekendar Sha* came into collision with the *Charles Worsley,* carrying away the latter's accommodation ladder, the platform, the topsail and main braces, and the mouldings. Value of damage to the *Charles Worsley,* £23. No damage to the cargo. No loss of life. (The collision, it was reported, was caused by the brig *Shekendar Sha* not having a sufficient number of men on board at the time of the accident, and also owing to her not being provided with better gear.)

304. The British Indian brig FUTTEHUL MUNNAN ROBIA [of Chittagong, 137 tons register, official number 5 of 1879], from Narainganj to Chittagong, with a cargo of jute. On the 1st November the brig was lying moored at the mouth of the Ballamiajhora khal in the Kornafuli river (Chittagong coast); at 3-15 P.M., during a strong gale from the southward, the brig *Shekendar Sha* dragged her anchors and came into collision with the *Futtehul Munnan Robia,* thereby doing serious damage to both vessels. No damage to the cargo. Value of damage to the *Futtehul Munnan Robia,* ₹400. No loss of life. (The collision, it was reported, was caused by the brig *Shekendar Sha* not having a sufficient number of men on board at the time of the accident, and also owing to her not being provided with better gear.)

305. The British iron ship BRITISH SCEPTRE [of Liverpool, 1,436 tons register, official number 60066], from Calcutta to London, with a cargo of jute. On the 1st November the ship, in pilotage charge and in tow of the steamer *Defiance,* was proceeding down the Hooghly river, and the pilot stated that after turning round for the purpose of anchoring her at Kalpi roads during the last of the ebb-tide, he kept the steamer ahead and towed against the tide for some 15 minutes in order to pick up a good berth. Having done so, he let go the

tug, and dropped the port anchor, but failing to check the chain as it ran out, she unfortunately parted it at 15 fathoms from the anchor; the pilot immediately let go the ship's starboard anchor, which brought her up at about 3 P.M. The position of the ship was determined by the bearings after she was brought up, *viz.*, the Kantabaria obelisk bearing North, and the Kalpi pagoda E. by S.$\frac{3}{4}$ S. No damage to the ship or cargo. Value of anchor and chain lost not known, it was reported that they had not been recovered. No loss of life. (The casualty was unavoidable.)

306. The British iron ship ORCHOMENE [of Liverpool, 1,542 tons register, official number 84140], from Calcutta to New York, with a general cargo. On the 1st November the ship *Orchomene* was lying moored with 30 fathoms of chain on each anchor at No. 1 Matea-bruj ghât moorings, in the Hooghly river, ready to proceed down the river in charge of a pilot. At about 5 P.M. the *Germanic,* in charge of an assistant harbour master, whilst dropping down to Garden reach, fouled the *Orchomene,* thereby doing the following damage:— Three chain plates bent, the lanyards of main rigging damaged, the topmast backstay stranded, the topgallant rail and plates of topgallant bulwark broken, and the gangway ladder broken, besides carrying away several of her ropes; estimated value ₹1,000. The master of the *Orchomene* stated that every precaution was taken to endeavour to prevent the collision by paying out chain and starboarding her helm, but unsuccessfully. Immediately after the accident, all assistance was however rendered by the crew of the *Orchomene* in order to get the two vessels clear. No damage to the cargo. The *Orchomene* subsequently on the 3rd November, in tow of the tug *Hunsdon,* proceeded on her voyage. No loss of life. (The collision was unavoidable.)

307. The American wooden ship GERMANIC [of Saint Andrews, New Brunswick, 1,296 tons register, official number 75684], from Calcutta to New York and Boston, with a full cargo of jute butts. The assistant harbour master stated that at 1 P.M., on the 1st November, whilst dropping down the ship *Germanic* from No. 6 Hastings' moorings to Garden reach, Hooghly river, preparatory to proceeding to sea in charge of a pilot, she would not answer her helm when abreast of No. 1 Matea-bruj ghat moorings, the assistant harbour master put the helm hard-a-port and veered 15 fathoms of chain to the anchor, notwithstanding which the *Germanic* came into collision with the ship *Orchomene,* which vessel was lying at anchor at No. 1 Matea-bruj ghât moorings. The *Orchomene,* it was reported by the first officer of the *Germanic,* was lying with her yards square, and did not hoist her gangway ladder up when ordered to do so, or brace the yards up. The *Orchomene* had two holes made in her rails, the chain plates bent, and the accommodation ladder smashed. Value of damage to the *Germanic,* not reported. No damage to the cargo. No loss of life. (The collision was unavoidable.)

308. The British Indian wooden brig AZIZAR ROHMAN [of Chittagong, 148 tons register, official number 5 of 1882], from Narainganj to Chittagong, with a cargo of jute. On the 1st November the brig was at anchor alongside the ship *Fannie Scotfield* off Moish khali, in the Kornafuli river (Chittagong coast), for the purpose of discharging her cargo. At 4 P.M. during a heavy cyclone, the hawser was cast off by the crew of the ship *Fannie Scotfield,* owing to which the brig dragged her anchor and drifted on to the ship *Charles Worsley,* thus causing a collision. The master of the *Charles Worsley* immediately cut away the mast of the *Azizar Rohman,* and the brig separated, when she was eventually anchored in a safe berth. Value of damage to the *Azizar Rohman,* ₹800. No loss of cargo. No loss of life. (This collision was caused by the carelessness of the tindal of the *Azizar Rohman,* inasmuch as he did not take the necessary precautions of securing her before the cyclone commenced.)

309. The British iron ship CHARLES WORSLEY [of Liverpool, 1,359 tons

register, official number 78827], from Chittagong to Dundee, with a cargo of jute. On the 1st November the ship was lying at No. 6 moorings in the Kornafuli river (Chittagong coast) loading her cargo of jute from on board the brig *Shekendar Sha*, when at 4 P.M. the brig *Azizar Rohman* dragged her anchors and fell athwart hawse of the ship *Charles Worsley*. After the collision the ship, finding that the brig's crew was leaving her, sent men on board to cut away her mainmast in order to get her clear; after the brig had separated, she was made fast alongside by the crew of the *Charles Worsley*. The ship's head gear was all chafed and head rails bent and broken; estimated value, £40. No damage to the cargo. No loss of life. (The collision was caused by the carelessness of the tindal of the brig *Azizar Rohman*, inasmuch as he did not take the necessary precautions of securing her before the cyclone commenced.)

310. The British iron screw steamer COMMILLA [of Glasgow, 550 tons register, official number 73799], from Rangoon to Calcutta, *viâ* Burman ports and Chittagong, with a general cargo. On the 4th November the steamer in pilotage charge was proceeding up the Hooghly river; the pilot stated that the steamer, being caught in an eddy, would not answer her helm; the engines were put full speed astern, but it was of no avail, and the vessel grounded at 11-45 A.M. on Fulta point during the last quarter of the flood-tide. She was aground for 45 minutes. No damage to the steamer or cargo. No loss of life. (The casualty was accidental.)

311. The British Indian padow ROOPARELL [of Surat, 7 tons register, official number 3508], from Bhávnagar to Broach, with a cargo of rice, wheat, &c. At 2 A.M. on the 4th November the padow struck on a sand bank off the Narbada river (Gulf of Cambay) and capsized on account of the carelessness of the tindal. She was subsequently recovered, but the whole of the cargo was washed out of her. Value of damage to the padow, ₹145; cargo all lost, value ₹430. The crew, 5 men, were saved in a muchwa, which was near by.

312. The British iron ship COIMBATORE [of Liverpool, 1,193 tons register, official number 29929], from Mauritius to Chittagong, in ballast. The ship, in charge of a pilot, and in tow of the steam-tug *Salween*, proceeded up the Kornafuli river (Chittagong coast) from the outer bar buoys all right up to Noa khali, when, after having crossed the Gupta khali crossing, the ebb-tide being very strong, the steamer was unable to make much headway; the master of the tug therefore asked the pilot to anchor, and after the pilot had sheered the *Coimbatore* a little off the bank, he let go the anchor and remained there for the night. At 6 A.M. the next day (4th November) the master of the *Salween* hailed to the pilot to pass hawsers, which was done, and the ship taken in tow. At 8 A.M. the pilot of the ship on observing that the steamer was steering to the East bank of the river sang out to him, not to go there, but he evidently did not mind it, and the tug continued to tow the ship towards the eastern bank. The pilot sheered the *Coimbatore* out as much as he could, thereupon the master of the tug hailed the pilot three or four times to go astern of the steamer, but the pilot replied that he could not do so as there was insufficient water; the master of the tug also said that if he did not steer after the *Salween* he could not tow the *Coimbatore*. Shortly after this, the master of the steamer not obeying the pilot's orders to keep her in deeper water, the ship *Coimbatore* grounded during ebb-tide on the eastern bank of the river a little below the Katta khali black buoy. The ship got off with the assistance of the tug when the flood made, after having been aground for 2½ hours. No damage to the *Coimbatore*. No cargo on board. No loss of life. (The pilot reported that he accounted for the casualty in consequence of the *Coimbatore* having been kept out of the channel owing to the master of the tug *Salween* not having obeyed his orders on that occasion and again on the day previous.)

[A Departmental Committee of Inquiry was held at the Port Office, Chitta-

gong, on the 12th November, to investigate the circumstances attending this casualty, when it was decided that the grounding of the ship *Coimbatore* was caused by culpable negligence on the part of the master of the steam-tug *Salween*. The President put in the following questions:— (1) was the steamer *Salween* put to any extra expense by being ordered by the pilot to be ready ahead of the ship *Coimbatore* to pass hawsers at 6 A.M. on the 4th November? (2) was the pilot to blame for the grounding of the *Coimbatore?* (3) were the orders of the pilot of the *Coimbatore* obeyed by the master of the steamer when towing the ship? and (4) did the pilot make a proper use of the lead? The finding of the Committee on the questions submitted to them for their opinion were as follows:—In reply to question (1), the Committee were of opinion that the *Salween* was put to no extra expense, because it was against the port rules for vessels to be towed, sailed, or steamed up the Kornafuli river through the port on a flood-tide: the Committee did not think that the pilot erred in ordering the tug to be ready on the morning of the day in question, as it was only 2½ hours from low-water on that date; (2) the Committee considered that the pilot was in fault, inasmuch as he did not cut or slip the towing hawsers when he found that the steamer was taking the ship near the sand and into danger; the vessel being head to tide, was quite under command, and he could have easily cast off and dropped the anchor: the Committee were of opinion that had the pilot of the *Coimbatore* been an European, no doubt he would have done so, but being a Native, he did not like to take upon himself the responsibility of thus acting, nor did he appear to have been aware that he was justified in in doing so, or that he had that power; (3) the Committee observed that the evidence clearly proved that the master of the *Salween* did not obey the pilot's orders, he not having starboarded the tug's helm when directed to do so: the Committee also considered the master of the steamer in default for not slackening or letting go his starboard hawsers when he found that, owing to the sheer, the *Coimbatore* had taken to port, the steamer would not obey her starboard helm, had he let go or slackened up the starboard hawser, the strain coming on the port rope would have helped the tug to have gone to port with starboard helm, and thus the *Coimbatore* would have been kept away from the sand; and (4) the Committee, from the evidence adduced, found that the lead was kept constantly going. In conclusion, the Committee were of opinion that this accident was mainly due to the master of the *Salween* in having been so anxious to take advantage of the slack water off the edge of the sand, and thereby save fuel; and that had the pilot's instructions been obeyed, and the *Coimbatore* kept in the channel as the pilot had ordered, the casualty would not have happened.]

The Commissioner of the Chittagong Division observed that the proceedings of the Departmental Committee of Inquiry, held by the Port Officer of Chittagong, relating to the grounding of the ship *Coimbatore,* were irregular, and that he could not form a Court. He forwarded the proceedings in order that the Government might decide whether a Court was necessary. The Commissioner reported that he did not consider that it was necessary, because the accident was a very slight one, and no damage was done.

The Lieutenant-Governor of Bengal accepted the finding of the Departmental Committee of Inquiry that the casualty was mainly due to the neglect of the master of the tug *Salween* to carry out the orders of the pilot of the ship *Coimbatore;* but seeing that the accident was slight and no damage was done, he did not consider that any further inquiry was necessary. The Commissioner of Chittagong, however, was requested to warn the master of the tug steamer to be careful to obey the instructions of the pilot in future, and to intimate to him that serious notice will be taken of any similar occurrence. With reference to the Commissioner's remark, that the proceedings of the Port Officer were irregular, and that he could not form a Court, the Lieutenant-Governor observed

that he was not prepared absolutely to prohibit the holding of Departmental Committees of Inquiry, as cases might frequently occur, in which there were no grounds for an investigation under the Merchant Shipping Act, but where a Departmental Committee of Inquiry might serve a useful purpose. In such cases, following the practice which had obtained for many years in Calcutta, the Port Officer of Chittagong might avail himself of the assistance of any masters of ships who may be willing to serve on a Departmental Committee of Inquiry. The Port Officer himself should preside, as no other competent person was available at Chittagong; but no such Committee should be held without the Commissioner's permission, and the constitution thereof should, in every case, be approved by the Commissioner.

313. The French wooden barque ATLANTIQUE [of Nantes, 540 tons register, official number not reported], from Calcutta to Port Chalmers, New Zealand, with a cargo of gunny bags. On the 5th November the barque, in charge of a pilot and in tow of the steam-tug *Columbus*, was proceeding down the Hooghly river; at 7-30 P.M., after the pilot boat had gone alongside of the barque from the Pilot brig *Cassandra* for the purpose of taking the pilot out, the *Columbus* eased down. The wind being N.N.E. was a moderate breeze, and the tide being half-flood, the barque had her topsails and the topgallant sails set, the pilot ordered the tug to go ahead at once in consequence of the barque having run up very fast astern of the steamer, but the engines of the *Columbus* being rather slack in going ahead full speed, the *Atlantique* forged ahead and came into collision with the *Columbus*, the barque's stem striking the tug's stem slightly, about 3 miles N.N.E. of the Eastern Channel lightship. No damage to the *Atlantique*. No loss of cargo. No loss of life. (The collision was unavoidable.)

314. The British iron paddle steamer COLUMBUS [of Calcutta, 97 tons register, official number 45431, age 30 years] was employed as a tug steamer on the Hooghly river. On the 5th November the steamer was proceeding down the Hooghly river towing the barque *Atlantique*; at 7-30 P.M. the *Columbus* eased down off the pilot brig *Cassandra* at the Sandheads, about 3 miles N.N.E. of the Eastern Channel lightship, to pick up the pilot boat in order to discharge the pilot; the barque having topsails and topgallant sails set before a strong N.N.E. breeze, ran up very fast over the hawsers astern of the steamer, and the engines being rather slow in answering to full speed ahead, the *Atlantique* slightly touched the *Columbus's* stern, without doing any serious damage to the latter beyond the destruction of some awning stanchions; estimated value not reported. No loss of life. (The collision was unavoidable.)

315. The British Indian mahangiri BHAGWANTI [of Panvel, 11 tons register, official number 3033], from Belápur to Thána, with a cargo of salt. On the 7th November, at about 10-30 P.M., the tindal stated that whilst making for the *Trombay* barge, Bombay harbour, the mahangiri was struck by a heavy sea and one of the planks giving way, she was filled with water and sank about 150 feet from the landing place. She was subsequently recovered with little or no damage. The cargo was all lost; value ₹825. The crew were picked up in a toney sent from the barge.

316. The British iron screw steamer DARLINGTON [of London, 1,293 tons register, official number 82889], from Jiddah and Aden to Calcutta, with 700 (pilgrims) passengers and a cargo of salt. On the 9th November the steamer was lying at No. 2 Calcutta moorings, in the Hooghly river, ready to load a cargo for Maulmain, when she took fire in the coal bunkers; cause not reported. The harbour master stated that at 10 A.M. on that day the master of the vessel reported to him that smoke was issuing from midship crossdeck coal bunker, and that on lifting the coals, they showed signs of being very hot when he immediately repaired on board, and found the case as represented. On the coals being turned, it was found that the fire was confined to a corner on the port side, and the crew, with the assistance of extra labour, were employed

in subduing the fire. But as a precautionary measure, the harbour master sent for the police fire-engine, although the steamer was in a position to supply the water needed, and after turning over the coals the fire was soon extinguished. A few deck planks were burned and charred, and a large hole was burnt through the flooring, which were all afterwards repaired on board. Value of damage to the steamer, ₹1,000. No damage to the cargo. No loss of life.

317. The British iron ship ROUTENBURN [of Greenock, 1,997 tons register, official number 81812], from Calcutta to Dundee, with a cargo of jute. On the 13th November the ship, in charge of a pilot and in tow of the tug steamer *Clive,* was proceeding down the Hooghly river; at 11-15 A.M., whilst crossing over from Luff point, a large Native boat was sailing down with a fresh northerly wind, keeping on her way until she got between the tug and the ship, and although the *Routenburn's* helm was put hard-a-port, the boat came into collision with the ship's port anchor a little below Luff point, thereby causing a dent in one of the *Routenburn's* bow plates; estimated value not reported. The Native boat had upper part of stern and steering oar damaged. No loss of cargo. No loss of life. (The occurrence was due to the carelessness of the crew of the boat. This was a case where, undoubtedly, the crew of the boat should have kept clear of the *Routenburn,* being a very large vessel, 2,000 tons, might easily have been stranded by such conduct on the part of the crew of the boat.)

318. The French wooden barque VILLE DE MARSEILLE [of Marseilles, 533 tons register, official number 4779], from Bourbon to Calcutta, in stone ballast. On the 16th November the barque was proceeding up the Hooghly river under pilotage charge and without steam; at 10-30 A.M., it being high-water, the pilot was tacking on to the sand with the wind from N. by E., a moderate breeze, and had just put the helm down to go about, when the barque took the ground on the sands to the westward of the Jellingham channel, the vessel's head at the time being to the W.N.W.; the Centre Western Jellingham buoy bearing S. by E. ½ E., the Upper Western Jellingham buoy N.E. ¾ N., and the Lower Eastern Jellingham buoy S.E. After jettisoning 20 tons of the ballast, she floated off at 9-30 P.M. the same day. The barque was aground for 11 hours. No damage to the barque. No cargo on board. No loss of life. (The pilot was not authorised to throw ballast unless the vessel was in imminent danger of being totally wrecked, and there were no boats available at the time into which the ballast could be put. He was accordingly reprimanded and warned.)

319. The British iron screw steamer HISPANIA [of Glasgow, 2,213 tons register, official number 82310], from Calcutta to Glasgow, with a cargo of jute, &c. On the 18th November the steamer, in charge of a pilot, was proceeding down the Hooghly river; at 9-10 A.M. the pilot was turning her round and backing astern, but when the Lower and the Centre Bishop's College sand buoys were in line, the engines were stopped and put full speed ahead, and had proceeded about 100 yards below the red buoy on the northern bank, when the vessel's heel took the ground very slightly, remaining so for a few minutes, when she came clear during the last of the ebb-tide. No damage to the steamer or cargo. No loss of life. (The casualty was accidental.)

320. The British Indian muchwa ROOPAREL [of Gogha, 9 tons register, official number 192, age about 40 years], from Gogha to Kair, with a general cargo. On the 18th November, at about 12 P.M., the muchwa, owing to the negligence of the tindal, struck on the Mál bank off the Narbada river in the Gulf of Cambay; she subsequently capsized and the whole of her cargo was washed out of her. The muchwa was eventually recovered with little or no damage. Value of cargo lost, ₹310. The crew, 6 men, and one passenger waded to the shore, as the water was shallow, and were saved.

321. The Malayan composite steamer WASHI [of Pulo Penang or Prince of Wales' island, 265 tons register, official number 65574], from Pulo Penang to Renoung and Maulmain, with a general cargo. On the 19th November whilst

he steamer was in the Straits of Malacca (exact position not given) she met with an accident in consequence of the low pressure engine having broken down The *Washi* was subsequently towed back to Penang by the steamer *Betsy,* at which port she remained till the arrival of new machinery from Europe. Value of damage to the steamer and cargo was not known. Value of damage to the machinery not reported. No loss of life. (The casualty was accidental.)

322. The British Indian muchwa KHENGTI [of Anjanvel, 10 tons register, official number 6690, age 61 years], from Kumta to Anjanvel, in ballast. At 12 A.M. on the 21st November the muchwa, owing to the force of the strong winds and tides, struck on a shoal at the entrance to the Kumta creek (Bombay coast), but was afterwards got off. Value of damage to the muchwa, ₹100. No cargo on board. The crew were saved by landing on the shoal, and thence walking ashore.

323. The British Indian wooden brig AMIRAL BÁHÁR [of Chittagong, 203 tons register, official number not reported], from Chittagong to Narainganj, in ballast. On the 23rd November the brig was proceeding up the Sundeep channel, Megna river (Sunderbuns), when at 4 A.M she came into collision with the schooner *Moideen Bux,* which vessel was anchored in the Sundeep river mouth with no lights burning. Both vessels were seriously damaged. Value of damage to the *Amiral Báhár,* ₹500. No cargo on board. Value of damage to the *Moideen Bux* not reported. No loss of life. (The casualty was attributed to the schooner *Moideen Bux* not exhibiting lights and to the non-sounding of her fog horn.)

324. The British Indian screw steamer SHASTRI [of Glasgow, 83 tons register, official number 89913], from Jaygad to Bombay, with 394 passengers on board, but no cargo. The steamer *Shastri* left Goa, bound for Bombay, at midnight of the 22nd November and called at several ports; there were 394 passengers on leaving Jaygad, but no cargo on board. The master had on board all the charts of the coast and a Guzarati translation of the regulations for preventing collisions at sea. The vessel drew 8 feet of water and carried four boats properly equipped. The *Shastri's* two side lights and the mast-head light were lighted and were burning brightly; there was a good look-out kept on board—two men on the look-out, one forward and one near the wheel. The steamer steered from the bridge before the foremast, and steered well. The master stated that the vessel left Jaygad at 4-15 P.M. on the 23rd November and entered the Dábhol river about 6 o'clock the same evening and found that there was a strong ebb-tide running. He was on the bridge with the mate when the steamer entered the river. The master said that he entered the Dábhol or Wáshishti river by the South shore and saw no vessel's lights on entering, but the Dábhol light on the bandar was sighted, as the *Shastri* came to the West side of the Anjanvel point, and he simultaneously saw the *Shirawuttee's* green light on his port side a little to the North, but not in the middle of the river. That steamer was gradually turning, but when he saw the green light he blew one blast of the whistle and was going at half-speed, *viz.,* 3½ knots an hour. The master of the *Shastri* proceeded on the E. ¾ N. course for a short time, when he observed the red and green lights of the *Shirawuttee,* but he continued on the same course, keeping close to the South shore. All of a sudden he stated that he saw the green light of the *Shirawuttee* which was then about 100 feet from his vessel. The master of the *Shastri* at once stopped his engines and gave one blast of the whistle; three minutes before the accident his steamer stopped, and he then gave three blasts of the whistle and gave the order "turn astern half speed," when immediately the *Shirawuttee* came across the *Shastri's* bows and fouled his vessel about 2½ cables West of the Yeldur rock, a little to the South of mid-channel and about 150 feet off the South shore in the Dábhol or Wáshishti river (Bombay coast). He then gave the order to "turn astern full speed." After the collision between the steamers *Shastri* and the *Shirawuttee,* the former vessel anchored opposite the

Dábhol bándar, and the latter was run ashore by the orders of the master near Yeldur, and the passengers and the mails safely landed. The dead body of a boy was found on board the steamer *Shirawuttee* between decks, with the legs broken, near the side of the plate which had been broken by the accident. It appeared also that three other persons were seriously injured by the collision. The bows of the *Shastri* were badly damaged, the cathead on the starboard side was broken, and the anchor dropped; water came into the collision compartment; but as the sluices were down in the collision bulkhead, no water came into the other parts of the steamer; her collision bulkhead being water-tight, she was enabled to proceed on her voyage to Bombay for repairs. The *Shirawuttee* was struck on her starboard side, and it seemed that from the evidence of the master that a hole 10 feet long and 8 feet broad was made in the *Shirawutte* by the accident. After the *Shirawuttee* was run ashore, she was made fast to the shore by means of a hawser; she had five water-tight bulkheads, but the water seemed to have soon rushed through the one in front of the engine-room. On the following morning the hawser parted, and the *Shirawuttee* sank into 5 fathoms of water. Value of damage to the *Shastri* not reported No loss of life. (The casualty was chiefly attributed to the master of the *Shirawuttee,* inasmuch as he disregarded the Rule of the Road which the master of the *Shastri* expected him to have followed.)

(For an account of this collision see Wrecks, No. 73.)

325. The British iron screw steamer CLAN GRANT [of Glasgow, 2,306 tons register, official number 86745], from Liverpool to Calcutta, with a general cargo. On the 26th November the steamer in charge of a pilot proceeded up the Hooghly river and was anchored at Garden reach by the assistant harbour master for the night. On the following morning the steamer steamed up slow preparatory to going to her moorings at No. 1 jetty. When off No. 3 Prinsep's ghât moorings, a passenger boat was sailing down the river right ahead of the steamer, whereupon the assistant harbour master blew the whistle, stopped the engines, and starboarded the helm, when the boat made for the Howrah side. The assistant harbour master then steadied the helm, when the boat again turned round and made for the Calcutta side; but the assistant harbour master, when he observed that the boat could not get clear, ordered the steamer to go full speed astern, when the boat came across the bows of the *Clan Grant* and sank. No damage to the steamer or cargo. Damage to the boat not reported. No loss of life. (The collision was caused by the crew of the boat persisting to cross the *Clan Grant's* bows.)

326. The Cingalese wooden brig JOHN HEPBURN [of Colombo, 83 tons register, official number 81066, age 49 years], from Manár to Jaffna, with a general cargo. The tindal stated that on the 30th November the brig was standing in for the anchorage with the fore and the main topsails and jib, when the wind failed her under Kundugal point (Gulf of Manár), and the strong current set her on to the Horse Shoe bank, when she grounded near the buoy. She afterwards floated off with little or no damage. No loss of cargo. No loss of life.

DECEMBER.

327. The British Indian craft NAGIN [of Alibág, 12 tons register, official number 1], from Bombay to Goa, with a cargo of cotton, wheat, &c. On the 1st December, at about 3 A.M., owing to strong Easterly winds, the craft capsized when off the port of Harnai (Bombay coast), but was subsequently recovered. Value of damage to the craft, ₹60; cargo worth ₹1,225 was lost, and the remainder were saved. The crew safely landed ashore in a canoe belonging to the craft.

328. The British iron screw steamer COCANADA] of Glasgow, 547 tons register, official number 67995], from Calcutta to Rangoon, *viâ* Chittagong, with a

general cargo. On the 4th December the steamer, in charge of a pilot, was proceeding down the Hooghly river. The pilot stated that after he took charge from the assistant harbour master at the Lower Bishop's College sand buoy, he backed her down to abreast of the Garden house steps, Garden reach, in order to pick up the Powder boat going slow ahead. At 7-20 A.M. he let go the steamer's starboard anchor, and whilst bringing up at 30 fathoms at the Garden house about the centre of the river, the chain parted at 14 fathoms, thus carrying with it the anchor. No damage to the steamer or cargo. Cost of recovering the anchor and chain not reported. No loss of life. (The casualty was accidental.)

329. The British iron screw steamer CORNELIA [of Penang, 202 tons register, official number 78689]', from Maulmain to Penang, with a cargo of rice. On the 5th December the steamer was proceeding down the Maulmain or Salween river with no pilot on board. At 8 A.M., in consequence of the Godwin sands having shifted a little to the South-West below the red buoy, which defined the channel, the steamer grounded on the tail of the spit, at the entrance to the Salween river (Burma coast). The master who piloted his own vessel, stated that he had previously passed over the same spot having plenty of water, but the Port Officer reported that since then the Godwin sands having shifted, the buoy accordingly had been removed. It was the last quarter of the ebb-tide; the weather was fine and clear, and there was a light breeze from the N.E. No damage to the steamer or cargo. No loss of life. (The casualty was unavoidable.)

330. The British iron screw steamer SCINDIA [of Glasgow, 1,986 tons register, official number 80461], from Calcutta to Bombay, *vid* Point de Galle and Colombo, with a general cargo. On the 7th December the steamer, in charge of a pilot, was proceeding down the Hooghly river. At 12-45 P.M., whilst going down at moderate speed, and just above Melancholy point, the steamer sheered a little to starboard; the helm was immediately ordered a-starboard and hard-a-starboard; but the steam steering gear refusing duty, the pilot was compelled to back full speed astern, when she unfortunately touched the bank off the point as she slewed round, but came off immediately. The pilot then turned the vessel and proceeded down as usual; but whilst just below the Dingywallahs' flat the helm again jammed, and the pilot was constrained to manœuvre as before with a like result, and at 2-15 P.M. she again slightly touched the bank during low water, but soon got off. The steamer was subsequently steered by hand. No damage to the steamer or cargo. No loss of life. (The accident was unavoidable.)

331. The British iron screw steamer BRENDA [of West Hartlepool, 1,082 tons register, official number 84522], from Calcutta to Dundee, with a cargo of jute. On the 7th December the steamer, in charge of a pilot was proceeding down the Hooghly river, when at 3-40 P.M. she slightly touched the mud bank off Nurpur during the last of the flood-tide with her port bilge, but in no way stopped the steamer's speed. No damage to the steamer or cargo. No loss of life. (The occurrence was accidental.)

332. The Arabian wooden barque FUTTAY MOMBARAK [of Maskat, 485 tons register, no official number, age 35 years], from Zanzibar to Calcutta, *vid* Maskat, with a cargo of salt. The barque, on the 7th December, was lying at No. 1 Kidderpur moorings in the Hooghly river, when at 4 P.M. the flat *Rhotas,* in tow of the Government steamer *Sir William Peel*, whilst coming to an anchor off the Government dockyard, came into collision with the barque *Futtay Mombarak,* thereby doing serious damage to the latter's port quarter galley, &c.; estimated value not stated. No loss of cargo. No loss of life. (The casualty was unavoidable.)

333. The British iron barque MONA [of Liverpool, 1,045 tons register, official number 78754], from Liverpool to Rangoon, with a cargo of salt. On the

14th December the barque, in charge of a pilot, was proceeding up the Rangoon river (Burma coast), when at noon, in rounding-to during the flood-tide, the vessel parted her chain at 35 fathoms, losing the anchor, off Mr. Hopper's gridiron at Dannedau. Both the anchor and chain were subsequently recovered and put on board again; but its cost was not reported. No damage to the barque. No loss of cargo. No loss of life. (The casualty was accidental.)

334. The British iron steamer MARY [of Falmouth, 20 tons register, official number 89735], from Falmouth to Chittagong, in ballast. It appeared that the steamer, having been recently built, was proceeding to Chittagong, at which port she was to be employed as a tug steamer. The master stated that on the morning of the 14th December, it being then very hazy and foggy, both he and the mate were on the bridge, looking out for the island of Minikoi, when at about 3-40 o'clock he saw a light which appeared to be 10 miles off, but was really much nearer, when the vessel touched with her port bilge on a sand bank a little off the West end of Minikoi island (Maldivhs), but happily scraped and rubbed away without entirely stopping. The steamer was put into Colombo on the 17th where a survey was held, and her bottom was examined by divers. They stated that they found the vessel's bottom was chafed and the propeller slightly knocked away, and that it was recommended that she should proceed at once to Calcutta for docking and repairs; she accordingly left for that port the following day, the 18th. The vessel arrived at Calcutta on the 24th December, and the Surveyors went on board on the 29th and found the *Mary* lying in the Union Dry dock, Howrah, in order to survey and report on the damage the steamer had sustained by the grounding on the sands off Minikoi island whilst on her passage out from England. They carefully examined the steamer's bottom, fore and aft on the port side, and found that the paint was rubbed off to the bare iron on the garboard strake, and the second strake for about 40 feet from a little before the boilers aft, the keel paint was rubbed off to the bare iron to right aft, the propeller blades were cleaned nearly bright, shewing that they were well in the sands. The Surveyors next examined the butts, rivets, plating, and sheer of the vessel, and found the whole intact; in the inside, the rivets, butts, &c., were examined, but could not find any indication of strain or injury, and the cement in the wings of the boilers showed no sign of crack or break. The Surveyors advised that the steamer's bottom be well cleaned down and get three coats of oil paint. Under those circumstances the Surveyors were of opinion that the steamer *Mary* had taken no hurt from the grounding on the sands off Minikoi island, but that being tight, staunch, and seaworthy, she was still a *first-class insurance risk.* Value of damage to the *Mary*, ₹1,000. No loss of life. (The casualty was caused by an error in judgment on the part of the master in not stopping his engines when the land was first sighted until it was daylight.)

335. The British iron four-masted barque EARL OF JERSEY [of London, 2,052 tons register, official number 87191], from Liverpool to Rangoon, with a cargo of salt. At 11-30 P.M. on the 15th December the barque, having been moored in a foul berth off the Salt godowns at Lamadau, in the Rangoon river (Burma coast), came into collision with the barque *Cadzow Forest* when swinging to the flood, and sustained damage to her poop, rails, &c., their starboard quarter striking the *Cadzow Forests* port quarter. Value of damage to the *Earl of Jersey*, about £50. No loss of cargo. No loss of life. (The casualty could have been avoided by the vessel being placed in a clear berth.)

336. The British iron barque CADZOW FOREST [of Glasgow, 1,068 tons register, official number 78576], from Liverpool to Rangoon, with a cargo of salt and sand ballast. On the 15th December the barque was moored with two anchors down off the Salt godowns, discharging her cargo at Lamadau in the Rangoon river (Burma coast); at about 11-P.M., the barque *Earl of Jersey,* in consequence of her having been moored too close by the assistant harbour

master, fouled the barque *Cadzow Forest* whilst swinging on the night flood-tide. No damage to the *Cadzow Forest*. No loss of cargo. No loss of life. (The immediate cause of the collision, it was reported, was owing to the barque *Earl of Jersey* having been moored too close to the *Cadzow Forest* by the assistant harbour master.)

[A Departmental Committee of Inquiry was held at the Port Office, Rangoon, on the 20th December, for the purpose of inquiring into the conduct of the assistant harbour master for having placed the barque *Earl of Jersey* in a foul berth, in consequence of which she came into collision with the barque *Cadzow Forest* whilst swinging to the flood. The Committee recorded, with regard to the barque *Earl of Jersey*, that they were of opinion that no blame could be attached to the assistant harbour master, he having simply obeyed the order given to him by the officiating senior harbour master, and moored that vessel as near the position assigned as possible. When the master of the *Earl of Jersey* called the assistant harbour master's attention after the barque was moored, to the fact that she was too near the *Cadzow Forest*, the latter went in a sampan to satisfy himself on that point, and the evidence showed that the two vessels did swing clear when tending to the ebb-tide. The Committee observed that it was easy to understand how the barques *Earl of Jersey* and the *Cadzow Forest* came into contact when swinging to the following flood-tide. At that part of the Rangoon river above the Godwin's wharf the tides (and especially the ebb-tides) set in all directions every hour, the overfalls causing continual strong eddies and the vessels to sheer about almost to the last minute of the tide, that no dependence could be placed at any time upon two vessels swinging simultaneously, and the same way the *Earl of Jersey*, being loaded, swung nearly round, whilst the *Cadzow Forest*, being light, had scarcely begun tending to the flood; hence the collision. There was, however, no evidence to prove that the *Cadzow Forest* dragged her anchor on the ebb-tide, nor were the Committee of opinion that she did so after the *Earl of Jersey* was moored, but that she had been lying slackly moored for some days, and that due attention had not been paid to this fact by the officiating senior harbour master before ordering the *Earl of Jersey* to be moored in her vicinity. The Committee recorded that when the master of the *Earl of Jersey* represented to the pilot that he disapproved of the berth selected for him his remonstrance was worthy of respect, and the matter should have been referred to the Port Office before placing so long and valuable a barque in a berth which the Committee presumed was unsafe, as no vessel of the length of the *Earl of Jersey* should have been moored to the westward of a line drawn across the river at Godwin's wharf. The Committee observed, with regard to the barque *Cadzow Forest*, that they did not think that the assistant harbour master intended to disobey the orders given to him by the officiating senior harbour master, but that he committed an error in judgment by mooring that vessel in the fairway there could have been no question; at the same time it was clearly proved by the evidence that the barque *Cadzow Forest* was very much out of trim, being by the head, and a large flat alongside made it most difficult to handle her, and the assistant harbour master was further baffled in his endeavours to drop the *Cadzow Forest* down by the fresh Easterly wind then blowing. The Committee considered that he had been trying to get his vessel into her berth since the morning of the 16th December, and had to move her again after sundown of the same date in order to get her into safety, and then to commence again on the 17th; it was easy for a seaman to have understood that the crew of the *Cadzow Forest* might have expressed dissatisfaction, and hence the assistant harbour master judged it more prudent to moor, being, as he stated, "sick and tired of the job." The Committee did not consider that an assistant harbour master who was a native should have been placed in charge of a large vessel like the *Earl of Jersey* when so much depended, not only upon his judgment

in handling so long a barque, but on making himself clearly understood when giving orders in any case of emergency.]

337. The British iron paddle steamer DEFIANCE [of Calcutta, 222 tons register, official number 41003] was employed as a steam-tug on the Hooghly river. On the 17th December the steamer *Defiance* was towing the ship *Otterburn* to sea; at 8 P.M. the pilot of the *Otterburn* had relinquished charge of the vessel at the Sandheads and was on board of the Pilot brig *Sarsuti*. The *Defiance* after hauling in the ship's hawser, slowed down to allow the master of the *Otterburn* to let go the steamer's hawser, but for some unaccountable reason he did not do so for a considerable time, whereupon whilst the steamer was paddling slowly ahead for the ship to do so, the *Otterburn* took a broad sheer on her starboard helm, and the master of the tug thinking that the master would keep the *Otterburn* so, let go the tug's hawser; when the ship again ported her helm, and before the *Defiance* could go ahead fast enough and port her helm in order to clear her, the *Otterburn* struck the steamer on the port quarter at about 8-30 P.M., when 6 miles S.S.W. of the Eastern Channel lightship (Sandheads), thereby carrying away the tug's after funnel, the quarter boat, and the awning gear. The two vessels immediately separated, when the steamer anchored for the night. On the following morning the *Defiance,* after having put her funnel over end again, towed the barque *San Joaquin* up to town. Value of damage to the steamer not reported. No loss of life. (The collision was unavoidable.)

338. The British iron ship OTTERBURN [of Greenock, 1,677 tons register, official number 76177], from Calcutta to Dundee, with a cargo of jute. On the 17th December the ship, in charge of a pilot and in tow of the steamer *Defiance,* was proceeding down the Hooghly river; at 8 P.M. the ship, after having discharged the pilot at the Sandheads on board the Pilot brig *Sarsuti,* the *Defiance,* after hauling in the ship's hawser, slowed down for the master of the *Otterburn* to let go the steamer's hawser, when half an hour after she came into collision with the tug steamer about 6 miles S.S.W. of the Eastern Channel lightship. Value of damage to the ship *Otterburn* not reported. Damage to the cargo, if any, not stated. No loss of life. (The collision was unavoidable.)

339. The British Indian padow VITHALPRASAD [of Surat, 40 tons register, official number 3337, age 30 years], from Mutvad to Dholera, with a cargo of cocoanuts and iron bars. At about 3 A.M., on the 17th December, the padow grounded, owing to the carelessness of the tindal, in the Dhobra creek (Gulf of Cambay), but was subsequently got off with little or no damage. Cargo worth ₹196 was lost. No loss of life.

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Government of India Central Printing Office.—No. 19 P. O.—13-7-85.—150.

WRECK CHART
INDIAN OCEAN
SUEZ TO PENANG
INCLUDING ZANZIBAR AND MAURITIUS.
Showing the Wrecks and Casualties which occurred during the year 1885.
Compiled by ARTHUR W. STIFFE, Captain, I. M.,
Port Officer and Registrar of Wrecks, Calcutta.
REFERENCES.
Wrecks.
Wreck with total loss of Cargo
Do. loss of Cargo not known
Do. with partial loss of Cargo
Do. caused by fire
Do. do. foundering
Do. do. collision
Do. do. stranding with no loss of Cargo
Casualties.
Serious Casualty
Slight do.
Casualty with partial loss of Cargo
Do. caused by fire
Do. do. collision
Do. do. stranding or grounding
NOTE.
The figures against the symbols refer to the number given on the Wreck or Casualty in the body of the Report. Red referring to Wrecks. Blue to Casualties.
CURVES OF EQUAL MAGNETIC VARIATION FOR 1880.
EGYPT
NUBIA
ABYSSINIA
ARABIA
PERSIA
BELUCHISTAN
SINDH
CUTCH
HINDOSTAN
ARABIAN SEA
BAY OF BENGAL
CEYLON
ANDAMAN ISLANDS
AFRICA
MOZAMBIQUE
MADAGASCAR
COMORO ISLANDS
MEDINA
MECCA
ADEN
BOMBAY
MADRAS
CALCUTTA
60 Longitude East of Greenwich
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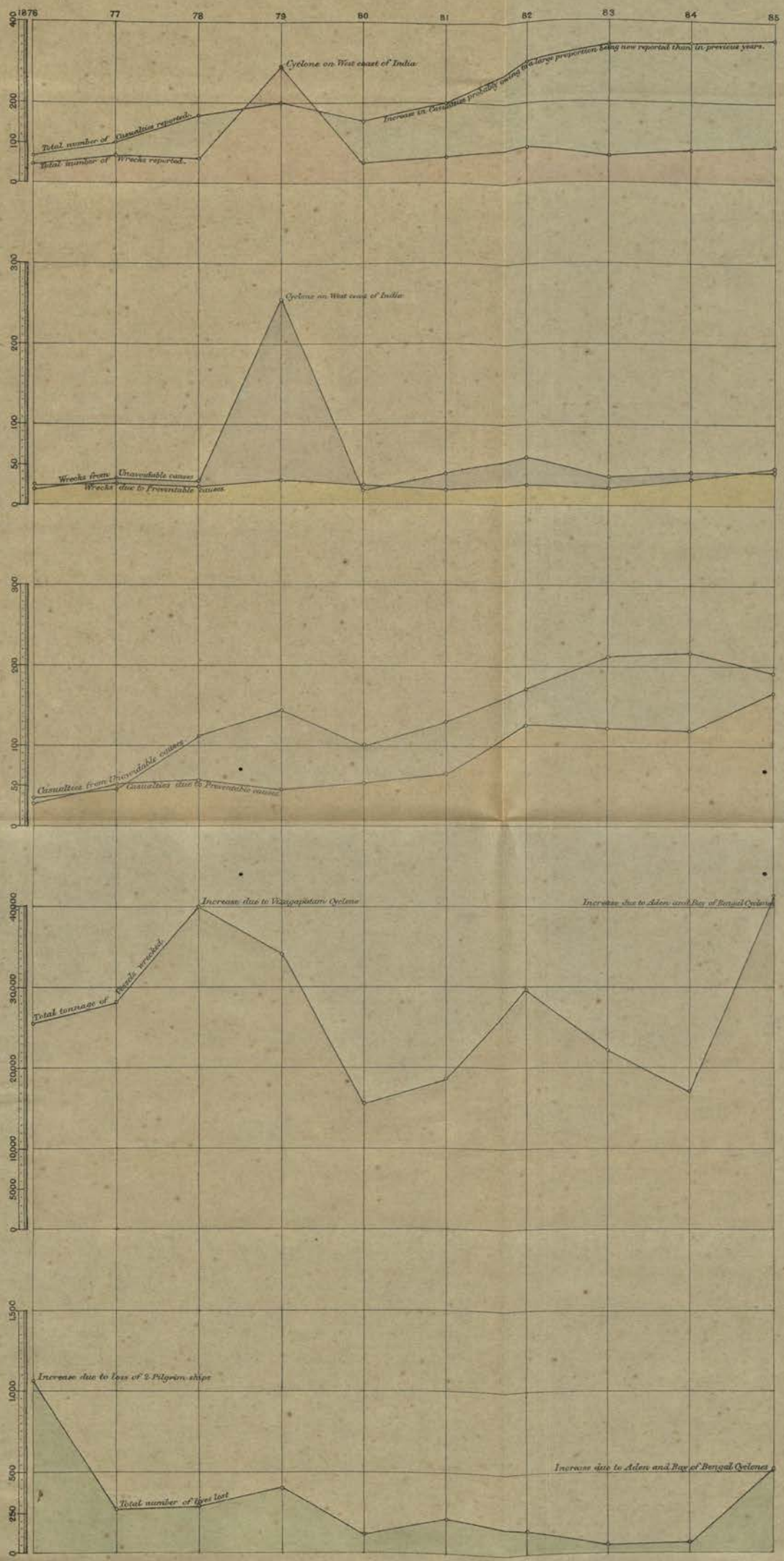
Engraved under the Superintendence of C.W. Gerard.

DIAGRAM

Showing comparative numbers of Maritime Wrecks and Casualties, total tonnage, and the number of lives lost, reported to the Indian Wreck Department, Calcutta, from the years 1876 to 1885 inclusive.


1876
77
78
79
80
81
82
83
84
85
Cyclone on West coast of India
Total number of Casualties reported.
Total number of Wrecks reported.
Increase in Casualties probably owing to a large proportion being now reported than in previous years.
Cyclone on West coast of India
Wrecks from Unavoidable causes
Wrecks due to Preventable causes
Casualties from Unavoidable causes
Casualties due to Preventable causes
Increase due to Vizagapatam Cyclone
Increase due to Aden and Bay of Bengal Cyclones
Total tonnage of Vessels wrecked
Increase due to loss of 2 Pilgrim ships
Total number of lives lost
Increase due to Aden and Bay of Bengal Cyclones

Lithographed at the Survey of India Offices, Calcutta, July 1886.

GOVERNMENT OF INDIA.

MILITARY DEPARTMENT

(MARINE BRANCH)

RETURN

OF

WRECKS AND CASUALTIES

IN

INDIAN WATERS

FOR THE YEAR 1885;

TOGETHER WITH A CHART SHOWING THE POSITIONS IN WHICH THEY OCCURRED, AND A DIAGRAM SHOWING COMPARATIVE NUMBERS OF THE REPORTED MARITIME CASUALTIES, &c., THE TOTAL TONNAGE, AND THE NUMBER OF LIVES LOST FOR THE PAST TEN YEARS.

PREPARED BY

CAPTAIN ARTHUR W. STIFFE, I. M.,

PORT OFFICER AND REGISTRAR OF WRECKS.

X C-44

CALCUTTA:

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1886.

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REVIEW.

It will be seen from this official record that the number of reported maritime wrecks and casualties in Indian Waters during the year 1885 exceeds that of any previous year since 1865, when this return was first prepared, with the exception of the year 1879. It will be perceived from a cursory glance at analysis E that the work is yearly becoming not only more voluminous, but of considerable importance and utility, being more full and complete in details than it used to be formerly.

2. The year 1885 was a disastrous one to Indian shipping—cyclonic disturbances had been prevalent all over the Indian seas—and several large vessels were lost, the total tonnage of which was 41,257, the highest number yet recorded. There were, without doubt, two distinct and fearful cyclones in the early part of June; the one, about the 1st to the 3rd far away to the West, occurred in the Gulf of Aden; the other, from the 9th to the 12th, happened on the East side of the Arabian sea not very distant from the port of Bombay, probably about 300 miles off. Both cyclones were of great intensity, the former especially, judging from the reports, being of great violence and without parallel in the memory of any one of Aden, and it will be long remembered in those parts. Much damage, it is said, was done on shore to houses, &c., at Aden. The cyclone commenced to the Eastward and travelled nearly through the Arabian Sea and Gulf of Aden and as far as the Red Sea, accompanied by a very heavy rainfall. The loss of the British screw steamer *Speke Hall,* which foundered in the Gulf of Aden with the whole of her crew, is most deplorable; the only survivor being the second officer, who was picked up, after supporting himself for 60 hours in the sea, on a small plank, by the Messageries Maritimes steamer *Peiho,* as will be seen in the detailed account printed in the Wreck Notes of this report. A more terrible calamity has been seldom recorded in the annals of disasters at sea. An account of what may be termed one of the most remarkable escapes on record is that of the only survivor of the crew of the British Indian barque *Jabree,* where a man lived without either food or water for 18 days, and drifted upwards of 500 miles in a dry wooden water tank before reaching the land at Jakáo on the coast of Cutch. The loss of life recorded in the June cyclone was 200.

3. A cyclone of smaller extent and intensity occurred in the upper part of the Bay of Bengal, off the Sandheads, in the early part of August; many vessels were totally wrecked and some severe losses were experienced, and no fewer than 33 lives were lost.

4. The cyclone which happened in the Bay of Bengal in the latter part of September was of great severity, and was attended with disastrous results. The course of this cyclone was generally to the N.-W.; it passed from the direction of the Andamans across the Bay of Bengal, accompanied as usual by a heavy rainfall, and round the coast of Orissa, the centre passing over the

harbour of False Point, accompanied by a fearful storm-wave to the height of about 15 feet. This wave rushed inland with tremendous velocity to a distance of about 12 miles, and the whole country thus far was completely inundated, and the loss of life on shore was appalling, being by the official estimate nearly 5,000; the loss also of cattle, crops, and property is very great. The cyclone advanced inland, the centre passing near Katak and thence through Chutia Nagpur. At False Point, Hookeytola, the small station on the inner side of Dowdeswell island (called by the Natives Nurrea Banga Nasa), where the Port officer and the Customs authorities resided, was entirely washed away, the only building left being the refuge-house: only a few cocoanut trees remain standing. The aspect of the whole of the harbour had so completely changed that it could hardly be recognized when the British India Company's steamer *Goa* entered from the southward. In January 1886 the harbour was surveyed by the Deputy Conservator to the Calcutta Port Trust when new beacons and buoys were carefully laid. Since Hookeytola has been swept away, the Port officer and the Customs authorities reside at Jumbo. The Port officer with his wife and four children, the whole of the Customs authorities save two, and the master, boatswain, and four of the crew of the British barque *Tewkesbury* perished in this storm-wave. The loss of life at sea occasioned through the September cyclone has been stated to be 200. The tidal-water rose at the False Point light-house about 10 feet above high-water level, and a stone has been let into the ground to mark the spot.

5. During the year there were wrecked 25 British vessels, 5 Frenc 1 Italian, 1 American, 1 Dutch, 1 Chinese, 1 Persian, 1 Turkish, 1 Cingalese 1 Maldivian, 2 Portuguese Native, 1 British Burman, 33 British Indian, and 1 Native craft,—or a total of 87 ships of 41,257 tons, with a loss of 502 lives. There occurred casualties to 251 British vessels, 15 French, 5 Italian, 2 American, 6 Norwegian, 2 Swedish, 5 German, 3 Siamese, 4 Cingalese, 1 Arabian, 1 Maldivian, 1 Portuguese Native, 1 British Burman, 57 British Indian, and 4 Native craft,—or a total of 358 ships, with a loss of 13 lives.

6. In comparison to the year 1884 this shows an increase of 8 in the number of wrecks, an increase of 19 in the number of casualties, and an increase of 437 in the number of lives lost. This lamentable loss of life, compared with previous returns, shows the largest numbers ever recorded except in 1876, in which year the total, chiefly due to the loss of two pilgrim ships in the Red sea, was over 1,000.

7. There were *three* cases of total loss by fire reported during the year 1885. The most serious loss was that which occurred on board the British iron ship *Charles Worsley* of 1,360 tons, in the Bay of Bengal, about 120 miles S.-E. of Saugor island light-house, in November, when on her homeward voyage from Chittagong to Dundee. The fire was attributed to the carelessness of William Morris, an ordinary seaman, going into the chain-locker, contrary to the rules of the vessel, with a naked light unobserved by any one on board. The ship and the very valuable cargo of 1,829 tons of jute in bales were destroyed; the former estimated at R27,200, and the cargo R2,04,880. The crew were fortunately taken off by the British India Company's steamer *Khandalla,* and landed at Rangoon. As this occurrence was caused by the action of one of the members of the vessel's crew, he was not committed for trial to the Magistrate's Court by the President of the Special Court of Inquiry on the charge of doing mischief under section 437 of the Penal Code, neither did the master adopt any proceedings against the seaman. The British light-vessel *Mermaid,* belonging to the Calcutta Port Commissioners, was burnt in February 1885 whilst lying at the *Intermediate light-ship station.* The origin of this disaster was not known, but the fire, no doubt, commenced in the forward end of the gun-room as, had it broken out at the after end of that room, the magazine would probably

have exploded much sooner than it did. As the first signs of the fire were observed at the gun-room hatch, the Marine Court of Inquiry which sat to investigate the outbreak of the fire were of opinion that it did not begin in the afterhold, as in that case the rice bags stowed against the bulkhead of the gun-room would have prevented the smoke first appearing where it did. It was not possible for a man to have got from the mainhold into the gun-room through the partition, and the rice was stowed in the gun-room right across the fore end from side to side and close up to the deck, rendering access impossible. Had the hose been in a more accessible place, the fire might possibly have been put out, and the officer in charge of the *Mermaid* was blamed for not having his fire hose connected and ready for use every evening. The Court also recommended that magazine and other spaces used for the storage of combustibles below should be entirely separated from the store-rooms used for the stowage of stores and provisions in the hold, and that the hatch leading to the magazine should be kept locked and the key in charge of an officer. The *Mermaid* was constructed of wood, and was built in Calcutta at a cost of R1,25,000. The crew were happily rescued by the steam-tug *Retriever,* which vessel was near by at the time. The third case happened in the American wooden barque *Revello* of 937 tons burthen whilst on her outward voyage from Greenock to Rangoon. The fire was first noticed in January when off the West coast of the island of Sumatra; every exertion was made by the men to subdue the fire, but the attempts being ineffectual, the master decided to beach her for the purpose of saving life and property. The steam-ship *Strathairly,* bound Northward, volunteered to take all the hands off, but the master declined the offer as he was hopeful of reaching either Port Blair or Bassein before abandoning the vessel. Subsequently, through the omission of the master to place a look-out on deck, the barque stranded on the reefs off Little Nicobar island, but got off after an interval of half an hour. Ultimately the *Revello* being in flames fore and aft, she was run ashore at the West side of the harbour of Nancowry, where she burnt to the water's edge. In this instance the cause assigned was the neglect of the master in not making a proper use of the ventilators which were on board. The Court of Inquiry remarked that it was clear from the statements of the witnesses that no special arrangements were made for ventilating the cargo at the time of loading, the only precautions that had been observed on this subject were to provide three ventilators for use at the commencement of, or during, the voyage at the discretion of the master, who alleged that he had never before sailed in a vessel with a complete cargo of coals on a long voyage, whilst in his evidence he stated that the *Revello* had been principally employed in the petroleum trade. Nearly £7,500 worth of property was totally lost.

8. The casualties by fire during the year were slight; two—the steam-ships *Petriana* and *Ville de Saint Nazaire*—were caused by having run short of coals. Both these accidents happened in the Arabian sea, whilst homeward bound—the former from Vizagapatam to Dunkerque with a cargo of jaggery, and the latter from Pondicherry to Nantes with a cargo of seeds and jaggery. Three hundred and fifty-six bags belonging to the *Petriana* were consumed for fuel, the value of which was R2,136. The *Ville de Saint Nazaire* also burnt a portion of her cargo as fuel, but its value was not stated. No official reports of these casualties reached this Department; they were not, it appears, reported at Aden; the details had to be compiled from private sources. A fire from some unknown cause broke out on board the steam-ship *Glenroy* in the Indian Ocean, about 20 miles West of Minikoi island, in September, when bound from London to Shanghai. Eleven bales of cotton yarn were more or less burned and damaged; the cargo in the 'tween deck was also damaged by the water pumped in, but the value of damage sustained was not reported. The the case of the steam-ship *Abissinia* was attributed to spontaneous

combustion, off Sokotra island in October, when bound from Calcutta to Genoa. Some cocoanut fibre had caught fire; this was extinguished, but soon afterwards it was found that some of the fibre had ignited, and it was finally put out the next day; the value of damage was not reported.

9. Under the head of wrecks the first serious loss to be noticed was that of the British India Steam Navigation Company's steam-ship *Calcutta,* by collision with the steam-ship *Mahratta* of the same Company's fleet, in the Kornafuli river, in October *(neither vessel having a pilot on board),* whilst the former was bound from Chittagong to Calcutta and the latter from Calcutta to Chittagong. Happily no lives were lost, but the vessel and the valuable cargo (estimated at £30,000) were totally lost. The master of the *Mahratta* was brought to trial and found guilty of rashly navigating his vessel, as set forth in the charge, and his certificate was suspended for a period of six months. During the cold season it had at first been hoped to raise the wrecked steamer as it was obstructing the fairway of the navigable channels, and the Eastern side of the river was fast silting up, but all attempts were unsuccessful. It was then proposed to blow the wreck up in January 1886 after the bulk of the ships had cleared out of the harbour, but as in the meantime she settled down considerably, and it was considered that during the freshets she might disappear, the question of the removal was postponed. The magnificent steam-ship *Nederland-en-Oranje* (belonging to the Insulinde Steam-ship Company of Amsterdam) on her outward passage from Amsterdam to Java, with a full and valuable cargo, was lost in an unfortunate collision with the German steam-ship *Amalfi,* which happened in the Outer harbour of Aden in February. The vessel valued at £30,000 and the cargo worth £45,000 were lost, but the crew were happily saved. Subsequently the steamer *Nederland-en-Oranje* was successfully raised and taken to Bombay, where she was thoroughly surveyed, and after having been repaired by the present owners was sent to sea again.

10. A large number of collisions is again recorded among the maritime casualties; it will be observed that 40 cases were due to the carelessness of the masters in charge, 15 to pilots, and 9 to harbour masters. The two most serious in the casualties were that of the *Bormida* and *Viscount* and the *Glandinorwig* and *Niccolo Accame.* The British iron barque *Glandinorwig* from Rangoon to The Channel, fully laden with rice, had safely proceeded down the river in March, and 15 hours afterwards ran into the Italian ship *Niccolo Accame* which vessel was lying at anchor off the Pilots' station, owing to the carelessness of the master of the former vessel in having attempted to cross the bow of the *Niccolo Accame* with a light breeze and a strong current running. The *Glandinorwig* was materially damaged, having lost her masts, backstays, sails, &c., and her master did not put back to Rangoon but endeavoured to proceed on his voyage, whereupon the crew objected and emphatically refused work; the master on seeing their mutinous conduct had to bring the barque to an anchor at the Pilots' station, when an examination was in consequence made afloat by the Surveyors, who reported the vessel seaworthy and were of opinion that there was nothing whatever to prevent her continuing on her voyage without any delay. Ultimately the crew being called aft were requested to state their reason for objecting to go to sea in the vessel, whereupon they replied that the barque had no topgallantmasts, and that two topmast backstays were carried away; and they still refused to proceed on the voyage, when one man (H. Dunstan), who appeared to be the spokesman, exclaimed that he was bound to go back to Rangoon. A week later on, Her Majesty's ship *Dragon* proceeded down the Rangoon river, and on signals being observed by the crew of the gun-boat, shown from the barque, she immediately ranged up alongside the *Glandinorwig.* Subsequently the mutineers were tried by a Naval Court held on board the *Dragon,* and as they were unable to give sufficient reason for their refusal, the Court at once passed sentence; *four* of

accomplices with the *leader,* who still determined to do no more work on board the vessel, having been found guilty were awarded various terms of imprisonment, and were sent to Rangoon to undergo their sentences, and five others shipped in their stead. The result of the bad behaviour of the crew was that the barque was detained at anchor on a dangerous coast for a week, and but for the timely interference of the British gun-boat *Dragon,* the *Glandinorwig* might have been detained there indefinitely. No Court of Inquiry could be held in the matter, as one of the vessels had left the port and was ready to pursue her voyage, but it was reported that the collision could have been avoided had the master of the barque *Glandinorwig* exercised proper care in the handling of his vessel. Another instance was that of the Italian steam-ship *Bormida,* which vessel considerably damaged the ship *Viscount,* whilst the former was in pilotage charge and the latter vessel lying at Mateabruj ghât, in the Hooghly river, discharging her cargo of kerosine oil. The value of damage to the *Viscount* was ₹10,000; and nothing is known of the damage to the *Bormida.* No Court of Inquiry was held; the case was subsequently investigated by the Calcutta High Court on its Admiralty jurisdiction, and decided in favour of the owners of the *Bormida.* It appeared that the pilot had been duly warned that the tide would be exceptionally strong at that season of the year, and he should have therefore used every precaution in navigating his vessel. The collision was, no doubt, caused by unskilfulness on his part in attempting to turn the *Bormida* round in such a strong tide whilst the Reach was obstructed by the barque *Ixopo* as admitted by the pilot himself. The pilot was reprimanded and warned to exercise more care in future. The other cases noted in this Return under review need no comment.

11. The following analyses show (A) the causes to which the reported disasters are to be attributed; (B) the general localities in which the reported maritime wrecks and casualties occurred; (C) a statement showing the number of reported maritime wrecks and casualties in Indian Waters in each month of the year 1885, the total tonnage of vessels wrecked, and the number of lives lost; (D) a comparative statement of the reported number of maritime wrecks and casualties recorded in the Indian Wreck Department from the years 1879 to 1885, inclusive, showing respectively British vessels, British Indian vessels, and Native craft; and (E) the reported number of maritime wrecks and casualties in Indian Waters, the total tonnage of vessels wrecked, and the number of lives lost during the years 1865 to 1885, inclusive.

A.—*Causes to which the reported maritime disasters are to be attributed.*

STRANDINGS.

	Carelessness of master.	Carelessness of pilot.	Carelessness of first officer.	Carelessness of second officer.	Incorrect charts.	Mistaken identity of land.	Cyclone.	Heavy weather.	Tides and currents.	Eddy-tide.	Neglect of lead.	To prevent foundering.	Insufficient towing power of steamer.	Unavoidable.
WRECKS.														
British and Foreign . . .	9	1	2	...	1	1	2	...	1	...	2	1	...	1
British Indian and Native Craft .	6	...	...	...	...	...	6	9	1	...	...	...	...	...
CASUALTIES.														
British and Foreign . . .	6	5	...	1	1	...	2	1	2	1	2	...	2	1
British Indian and Native Craft .	3	...	...	...	...	...	2	1	1	...	...	...	...	...

A.—*Causes to which the reported maritime disasters are to be attributed*—continued.

GROUNDINGS.

	Carelessness of master.	Carelessness of pilot.	Carelessness of first officer.	Carelessness of third officer.	Carelessness of harbour master.	Heavy weather.	Stress of weather.	Tide and currents.	Eddy-tide.	Neglect of lead.	Scant tides.	Insufficient towing power of steamer.	Bad stowage of cargo.	Bad steering qualities of ship.	Overladen.	Unavoidable.
WRECKS.																
British and Foreign	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
British Indian and Native Craft	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CASUALTIES.																
British and Foreign	5	18	1	2	1	2	2	4	7	1	1	1	1	1	...	26
British Indian and Native Craft	9	...	...	...	...	3	2	...	...	...	..	...	...	...	1	1

COLLISIONS.

	Carelessness of master.	Carelessness of pilot.	Carelessness of harbour master.	Carelessness of first officer.	Carelessness of third officer.	Carelessness of chief engineer.	Carelessness of man at wheel.	Carelessness of crew of boat.	Cyclone.	Stress of weather.	Not exhibiting lights.	Tides and currents.	Not reported.	Unavoidable.
WRECKS.														
British and Foreign	2	...	...	...	...	...	...	...	...	...	1	...	...	...
British Indian and Native Craft	1	...	...	...	...	...	...	...	...	...	3	...	...	...
CASUALTIES.														
British and Foreign	31	15	9	3	1	1	1	6	2	2	3	13	1	6
British Indian and Native Craft	9	...	...	...	...	...	...	...	...	...	2	1	...	...

FOUNDERINGS.

	Carelessness of master.	Cyclone.	Heavy weather.	Stress of weather.	Bad stowage of cargo.	Tides and currents.	Overladen.
WRECKS.							
British and Foreign	...	5	1	...	1	1	...
British Indian and Native Craft	3	3	7	1	...	...	1
CASUALTIES.							
British and Foreign	...	...	...	...	...	..	...
British Indian and Native Craft	2	...	2	...	...	...	...

MISCELLANEOUS.

	Fire—Carelessness of crew.	Fire—Carelessness of master.	Fire—Spontaneous combustion.	Fire—Short of coals.	Fire—Not reported.	Fire—Unknown.	Sprung a leak—Carelessness of master.	Sprung a leak—Carelessness of engineer.	Sprung a leak—Weakness of construction.	Sprung a leak—Cyclone.	Sprung a leak—Heavy weather.	Sprung a leak—Old and rotten.	Sprung a leak—Not keeping watch on board.	Sprung a leak—Not reported.	Damage to hull—Cyclone.	Damage to hull—Tides and currents.	Loss of masts, pars, sails, &c.—Cyclone.	Loss of masts, spars, sails, &c.—Heavy weather.	Damage to engines—Carelessness of the builders of the engines.	Damage to engines—Cyclone.
WRECKS.																				
British and Foreign	1	1	...	...	...	1	...	...	1	...	...	...	1	...	...	...	...	...	...	...
British Indian and Native Craft	...	...	...	...	...	...	...	...	...	1	...	4	...	...	...	...	...	...	...	...
CASUALTIES.																				
British and Foreign	...	...	1	2	1	...	1	2	1	...	2	...	...	2	10	1	10	2	1	3
British Indian and Native Craft	...	...	...	...	...	...	...	...	...	1	3	2	...	...	1	...	3	1	...	...

A.—*Causes to which the reported maritime disasters are to be attributed*—concluded.

MISCELLANEOUS—*concluded.*

	Damage to engines—Heavy weather.	Damage to engines—Bad look-out.	Damage to engines—Unavoidable.	Damage to engines—Unknown.	Damage to engines—Not reported.	Loss of anchors and cables—Heavy weather.	Loss of anchors and cables—Defective cable.	Loss of anchors and cables—Tides and currents.	Loss of anchors and cables—Carelessness of crew.	Loss of anchors and cables—Stress of weather.	Loss of anchors and cables—Carelessness of harbour master.	Loss of anchors and cables—Eddy-tide.	Loss of anchors and cables—Not reported.	Loss of anchors and cables—Unknown.	Loss of anchors and cables—Unavoidable.	Capsized—Carelessness of master.	Capsized—Heavy weather.	[illegible]ized—Tides and currents.	[illegible]apsized—Stress of weather.	Slight casualty—Unavoidable.	TOTAL.
WRECKS.																					
[illegible]ish and [illegible]gn .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37
[illegible]ndian [illegible]tive .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	1	...	50
[illegible]TIES.																					
[illegible] and [illegible]gn .	3	1	2	4	15	6	4	4	1	1	1	1	3	2	9	...	...	...	...	2	289
[illegible]n Indian [illegible]i Native [illegible]aft . .	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	5	6	2	4	...	69

B.—*General localities in which the reported maritime Wrecks and Casualties occurred.*

	North-East coast of Africa.	Gulf of Aden.	Red Sea.	South coast of Arabia.	East coast of Arabia.	Persian Gulf.	Gulf of 'Oman.	Beluchistan coast.	Arabian Sea.	Sind coast.	Gulf of Cutch.	Káthiáwár coast.	Gulf of Cambay.	Bombay coast.	Portuguese Territory.	Malabár coast.	Indian Ocean.	Gulf of Manár.	Ceylon coast.	Palks Strait.	Coromandel coast.	Madras coast.	Orissa coast.	Sandheads.	Hooghly river.	Sunderbuns.	Chittagong coast.	Burma coast.	Andamans.	Nicobars.	Malay Peninsula.	Bay of Bengal.	TOTAL.
WRECKS.																																	
British and Foreign .	2	2	1	2	...	1	...	...	2	...	...	...	...	1	...	2	...	...	4	...	1	1	4	3	1	1	1	3	1	1	1	2	37
British Indian and Native Craft . .	1	...	...	...	1	...	1	1	1	3	...	2	4	18	...	6	1	1	1	...	...	...	3	...	...	1	...	2	2	...	...	1	50
CASUALTIES.																																	
British and Foreign .	2	9	14	8	1	8	...	...	19	1	...	1	...	11	...	2	9	1	5	2	5	...	6	11	113	...	14	41	...	...	1	5	289
British Indian and Native Craft . .	...	2	...	...	...	1	...	...	2	1	1	2	6	30	2	...	...	10	1	2	...	...	2	...	1	...	3	...	1	...	...	2	69

C.—*A Statement showing the number of reported maritime Wrecks and Casualties in Indian Waters in each month of the year 1885, the total tonnage of vessels wrecked and the number of lives lost.*

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Number of Wrecks .	8	7	9	4	3	11	...	12	14	5	9	5	87
Number of Casualties	28	30	30	26	34	55	22	35	38	20	21	19	358
Total tonnage of vessels wrecked .	1,582	5,868	3,488	3,540	387	7,589	...	4,002	6,666	956	4,581	2,598	41,257
Lives lost . .	23	8	...	...	...	200	...	33	200	...	48	3	515

D.—*Comparative Statement of the reported number of maritime Wrecks and Casualties recorded in the Indian Wreck Department, from the years 1879 to 1885 inclusive, showing respectively British vessels, British Indian vessels, and Native craft.*

Year.	WRECKS.							CASUALTIES.						
	British vessels.*		British Indian vessels.		Native craft.			British vessels.*		British Indian vessels.		Native craft..		
	Unavoidable.	Preventable.	Unavoidable.	Preventable.	Unavoidable.	Preventable.	Total.	Unavoidable.	Preventable.	Unavoidable.	Preventable.	Unavoidable.	Preventable.	Total.
1879 .	11	11	176	18	68	5	289	76	35	58	10	11	2	192
1880 .	2	11	15	12	7	3	50	90	47	9	5	4	1	156
1881 .	6	9	28	9	8	3	63	97	49	29	14	5	2	196
1882 .	9	18	39	6	13	5	90	119	98	45	33	8	...	303
1883 .	5	10	22	10	12	6	65	148	88	57	29	9	5	336
1884 .	6	7	26	22	11	7	79	153	83	50	34	14	5	
1885 .	12	24	19	14	12	6	87	155	135	25	29	10		

* Including European vessels.

E.—*Comparative Statement showing the reported number of maritime Wre... Casualties in Indian Waters, the total tonnage of vessels wrecked, and the n... of lives lost during the years 1865 to 1885, inclusive.*

Year.	Number of wrecks and casualties.	Total tonnage lost.	Lives lost.	Remarks.
1865	28	14,443	6	
1866	32	15,597	35	
1867	37	17,417	49	
1868	20	12,558	19	
1869	55	25,688	279	
1870	44	14,809	51	
1871	47	18,294	118	
1872	106	34,238	143	Exclusive of *four* vessels supposed to have been lost.
1873	42	12,110	3	
1874	69	16,656	85	
1875	62	11,193	65	
1876	110	23,866	96	Does not include the 400 pilgrims lost in the *Hydree* and 428 in the *Javad*, both wrecked in the Red Sea, nor the master and crew of both those vessels.
1877	163	26,847	142	Not including the master and crew of the *Anadne* and the *Coda Bux* supposed to have foundered.
1878	228	35,873	131	Not including the master and crew of the *Lady Rawlinson* supposed to have foundered, and also of the *Fattel Carim, Futtay Rozack, Lady Amherst*, and *William Stevenson*. The tonnage of the *Queenstown, City of Palaces, Fattel Carim, Futtay Rozack, Lady Amherst*, and *William Stevenson* was not reported, and is therefore not included.
1879	481	32,541	357	The number lost in the *Essex* was not reported.
1880	206	15,662	120	
1881	259	17,814	186	Does not include the missing ship *Nebo*.
1882	393	29,272	155	
1883	401	21,760	62	
1884	418	17,109	78	
1885	445	41,257	515	

12. A diagram showing the reported number of maritime wrecks and casualties in Indian Waters, the total tonnage of vessels wrecked, and the number of lives lost, from the years 1876 to 1885, inclusive, is appended in the Return.

13. From the foregoing it will be seen that during the past 21 years (1865 to 1885, inclusive) the annual average number of the reported wrecks and casualties in Indian Waters has been 173, the average total tonnage lost was 21,667, and the number of lives lost 128.

ARTHUR W. STIFFE, *Captain, I. M.,*
Port Officer and Registrar of Wrecks.

INDIAN WRECK DEPARTMENT,
PORT OFFICE,
Calcutta, 15th May 1886.

TABULAR STATEMENT OF THE WRECKS,

ARRANGED IN THE ORDER IN WHICH THEY OCCURRED.

Number.	Name of Vessel.	Tonnage.	Flag and rig of vessel.	Date of wreck.	Whence bound.	Whither bound.	Cargo and its total value.
1	*Musgrave*	300	British screw steamer	8th January	Liverpool	Brisbane	In ballast
2	*Ganesh Prasád*	35	British Indian padow	9th do.	Bombay	Ratnagiri	40 tons teakwood logs; value ₹1,860.
3	*Futhe Salaam* (See Casualties No. 9.)	13	Ditto pattimar	11th do.	Bárkúr	Cochin	15 tons paddy; valued at ₹800.
4	*Khengty* (See Casualties No. 11.)	14	Ditto muchwa	13th do.	'Antora	Harnai	Paddy and ₹748 in silver; value ₹1,084.
5	*Peedarut*	140	Native bagla	14th do.	Maskat	Anjár	Dates and cotton seeds; valued at ₹8,000
6	*Lekshminaranapresad*	28	British Indian pattimar	Do. do.	Cochin	Molky	In ballast
7	*Fatteh Múbárak*	115	Ditto dingy	16th do.	Kurrachee	Bombay	Wool, cotton, &c., value ₹17,000.
8	*Revello*	937	American barque	30th do.	Greenock	Rangoon	1,355 tons of coals; value £621.
9	*Nederland-en-Oranje* (See Casualties No. 29.)	1,514	Dutch screw steamer	1st February	Amsterdam	Java	1,500 tons general; value £45,000.
10	*Mermaid*	247	British brig	Do. do.	Employed as the *Intermediate* light-ship		
11	*Justitia*	1,986	British screw steamer	5th do.	Calcutta	London	3,787 tons of rice, tea, hides, tobacco, &c., value £70,000.
12	*Nayin Byan*	70	British Burman kattoo	8th do.	Tavoy	Rangoon	Paddy and dunnee leaves; value ₹3,500.
13	*Fate Rahimany*	63	British Indian pattimar	14th do.	Cannanore	Bombay	Copra, cocoanuts, ginger and cardamoms; valued at ₹14,655.
14	*Cholon*	1,972	French screw steamer	16th do.	Rangoon	Port Said	2,300 tons of rice; value ₹1,50,475.
15	*Bagarah* (See Casualties No. 44.)	16	Persian boat	17th do.	Bandar Maoliem	Seaward	Nets; value ₹1,000
16	*Tripudio*	1,081	Italian barque	8th March	Newcastle-on-Tyne.	Akyab	1,643 tons of coals; valued at £2,000.
17	*Bundihawoody*	42	Maldivian sloop	11th do.	Colombo	Kings island (South Máli Atoll).	General; value not stated.
18	*Ramprasad*	14	British Indian padow	15th do.	Revdanda	Bombay	Firewood; value ₹116.
19	*Acorn*	374	British barque	18th do.	The Mauritius	Ditto	Sugar; value ₹86,400
20	*Chandani*	16	Native gulbut	20th do.	Revdanda	Anjanvel	Casks and gunnies; value ₹340.
21	*Luckmipussa*	29	British Indian battalla	22nd do.	Sirgándo	Mundra	Paddy and rice; value ₹1,265.
22	*Daria Doulat*	18	Ditto padow	23rd do.	Anjanvel	Bombay	Groundnut oil and ground nuts; value ₹7,800.
23	*Jairam Prasad*	14	Portuguese Native padow	25th do.	Kelva Máhim	Ditto	Chunam; value ₹900
24	*Arafat*	1,900	British screw steamer	28th do.	North Shields	Ditto	2,600 tons of coals and machinery; value £52,000.
25	*Kalmia*	1,798	British ship	7th April	Liverpool	Calcutta	2,750 tons of salt; value £2,221.
26	*Doulutpassa*	50	Native padow	8th do.	Bombay	Mangalore	Coals; value ₹800
27	*Cannanore*	1,599	British ship	Do. do.	Shanghai	Calcutta	800 tons stone and sand ballast.
28	*Ranchooprasad*	93	British Indian ganja	22nd do.	Kárwár	Bombay	Myrabolams and cotton; value ₹15,370.
29	*Jelim Prasad*	137	Portuguese Native sloop	4th May	Sadáshivgad	Panjim	Teakwood logs; value ₹5,600.

during the year 1885.

Position of wreck and name of shoal, &c.	General locality where wreck occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
On the Northern extremity of the Rocky ledge about 2⅔ miles from Negombo, in latitude 7° 14′ 30″ N., longitude 79° 47′ 45″ E.	Ceylon coast . .	Stranding. Carelessness of the master	None lost.	.....
Off the port of Shrivardhan . . .	Bombay coast . .	Foundering. Overladen . . .	One lost .	Partially lost; value ₹789.
8 miles W. by N. ½ N. of the Calicut light-house.	Malabár coast . .	Collision with the steam-ship *Chindwara*. The pattimar not exhibiting lights.	None lost .	Totally lost.
Off Harnai fort	Bombay coast .	Collision with the steamer *Shastri*. The muchwa not exhibiting lights.	Ditto . .	Ditto.
East side of Gwádur bay	Belúchistan coast .	Stranding. Gale	Ditto . .	Partially lost; value ₹3,000.
On the shoal abreast of Chowghát port .	Malabár coast . .	Ditto. Heavy weather . .	Ditto.	.....
40 miles from Kurrachee	Sind coast . .	Foundering. ditto . .	Twenty-two lost	Totally lost.
On the reefs off the island of Irák to the N. W. of Little Nicobar island.	Nicobars . .	Fire. Carelessness of master . .	None lost .	Partially lost; value £504.
In the Outer harbour of Aden in 4¾ fathoms of water.	South coast of Arabia	Collision with the steam-ship *Amalfi*. Carelessness of master of *Amalfi*.	Ditto . .	Totally lost.
Halfway between the Lower Gaspar and the Eastern Channel light-ships in 7 fathoms of water, in latitude 21° 14′ 45″ N., longitude 88° 11′ 0″ E.	Sandheads . .	Fire. Unknown	Ditto.	.....
On the Nikettia reef, about 13 miles to the Southward of Colombo.	Ceylon coast . .	Stranding. Carelessness of the master	Ditto . .	Partially lost, value £52,000.
On the Western sands, entrance to Rangoon river, Gulf of Martaban.	Burma coast . .	Ditto. Neglect of lead . .	Ditto . .	Totally lost.
On the rocks off the port of Viziadurg . .	Bombay coast .	Ditto. Heavy weather . .	Ditto . .	₹2,000 worth lost and ₹12,000 damaged.
On the Ahlón sands, in the Rangoon river .	Burma coast . .	Ditto. Tides and currents . .	Ditto . .	Partially lost, value ₹31,176.
In latitude 26° 32′ N., longitude 55° 47′ E. .	Persian Gulf . .	Collision with the steam-ship *Arabia*. Not exhibiting lights on the part of the crew of the boat.	Three men lost	Totally lost.
On the S. W. side of the Oyster reef . .	Burma coast . .	Stranding. Carelessness of the master	None lost .	Ditto.
In latitude 7° 13′ N., longitude 69° 21′ E. .	Indian ocean . .	Foundering. Heavy weather . .	Ditto . .	Ditto.
Half a mile South of Kúndari island fort .	Bombay coast .	Ditto. Carelessness of the tindal	Ditto . .	Ditto.
About 240 miles to the Westward of Minikoi island, in latitude 8° 26′ N., longitude 68° 48′ E.	Arabian sea . .	Sprung a leak. Weakness of construction.	Ditto . .	Ditto.
Off Harnai fort	Bombay coast .	Collision with the steamer *Godavari*. The gulbut not exhibiting lights.	Ditto . .	Ditto.
One mile off Jaghi bandar	Sind coast . .	Capsized. Stress of weather . .	Ditto . .	Ditto.
Half a mile to the Southward of the Kúndari island fort.	Bombay coast .	Foundering. Carelessness of the tindal	Ditto .	Partially lost; value ₹2,400.
About two miles off the village of Yedwan .	Ditto . .	Ditto. Heavy weather . .	Ditto .	Totally lost.
42 miles to the West of Jebel Teir islands, in latitude 15° 33′ 30″ N., longitude 41° 04′ 0″ E.	Red Sea . .	Stranding. Carelessness of the master and first officer.	Ditto .	Ditto.
Two miles seaward of Malúd, nearly midway between Púri and Gopalpúr.	Orissa coast . .	Stranding. Carelessness of the master	Ditto .	Ditto.
At the mouth of the Gúrpúr river, in the Port of Mangalore.	Bombay coast .	Sprung a leak. Old and rotten . .	Ditto .	Ditto.
One mile South of the Davy river, in latitude 19° 57′ N., longitude 86° 21′ E.	Orissa coast . .	Stranding. Incorrect charts . .	Ditto .	.....
Off Pavas, near Ratnagiri	Bombay coast .	Sprung a leak. Old and rotten . .	Ditto .	Totally lost.
On the sands at the mouth of the Sadáshivgad harbour.	Ditto . .	Stranding. Heavy weather . .	Ditto .	Partially lost; value ₹100.

Number.	Name of Vessel.	Tonnage.	Flag and rig of vessel.	Date of wreck.	Whence bound.	Whither bound.	Cargo and its total value.
30	*Shoay-la-Young*	135	British paddle steamer	18th May	Employed on the	passenger and goods traffic on Inland rivers in Upper	Burma.
31	*Lukhmipassa*	115	Native ganja	23rd do.	Bombay	Cutch Mándvi	In ballast
32	*Javirprasad*	50	Ditto	1st June	Zanzibar	Bombay	Cocoanuts and shells; value ₹2,600.
33	*Speke Hall*	1,731	British screw steamer	3rd do.	Cardiff	Ditto	Coals; value £36,000
34	*Fattel Barry*	1,239	Turkish ship	Do. do.	Jiddah	Maskat	In sand ballast
35	*Dowlut Pussa*	69	British Indian bagla	5th do.	Zanzibar	Bombay	Shells, ebony, &c.; value ₹6,000.
36	*Patrie*	551	French barque	8th do.	Pondicherry	Réunion *viâ* Cocanada and Vizagapatam.	General; value ₹34,500
37	*Jabree*	695	British Indian barque	9th do.	Zanzibar	Maskat	Ditto; value ₹25,000
38	*Copeland Isle*	681	British barque	10th do.	Rangoon	Bombay	Rice and teak timber; value ₹94,125.
39	*Ruparel*	27	British Indian padow	Do. do.	Bombay	Mahúva	Rice, jowari, &c.; value ₹4,000.
40	Unknown	69	Ditto kotia	11th do.	Bákerganj	Noakháli	In ballast
41	*Seraglio*	1,165	British screw steamer	13th do.	Cardiff	Bombay	2,650 tons of coals, acids, and dynamite; value not reported.
42	*Willingale*	1,312	Ditto ditto	21st do.	Vizagapatam	Boston	2,395 tons jaggery and castor oil seeds; value £15,842.
43	*Cécile Marie*	446	French ship	5th August	Calcutta	Réunion	Rice and hog's lard; value ₹71,040.
44	*Allee*	14	British Indian padow	9th do.	Trombay	Bombay	Salt; value ₹550
45	*Kallian Pussa*	100	Native ganja	11th do.	Calicut	Cutch Mándvi	Teak timber and coir rope; value ₹10,000.
46	*Laxumeepersád*	145	Ditto	14th do.	Cutch Mándvi	Calicut	In ballast
47	*Holá*	50	Ditto	15th do.	Dwárka	Ditto	Ditto
48	*Alimadat*	16	British Indian gulbut	17th do.	Bhávnagar	Surat	Cotton, and ₹1,000 in silver; value ₹4,000.
49	*British Statesman*	1,262	British ship	Do. do.	Calcutta	Demerara	1,724 tons rice; value £16,500.
50	*Europa*	437	British Indian barque	20th do.	Bandar 'Abbás	Calcutta	Salt and red ochre; value ₹25,000.
51	*Tuna*	165	British screw steamer	21st do.	North Shields	Napier (New Zealand).	In ballast
52	*Mahamoody*	14	British Indian padow	22nd do.	Bombay	Basseen	Railway sleepers; value ₹15,000.
53	*Dalmatia*	1,079	British screw steamer	30th do.	Rangoon	Port Said	1,340 tons of teak timber and cutch; value £13,220.
54	*Court Hey* (See Casualties Nos. 255, 256, and 258.)	274	British paddle steamer	Do. do.	Lying	at No. 7 Swing	ing buoy
55	*Vanugopalswamy*	160	British Indian brig	17th September	Vizagapatam	Maulmain	Gingelly seeds, oil, ghee, &c., and ₹2,000 in silver; value ₹5,164.
56	*Flying Cloud*	25	Chinese steamer	18th do.	Pulo Penang	Pulo Larut	General; value $ 1,000
57	*Faizool Curreem*	250	British Indian barque	19th do.	Masulipatam	Rangoon	Chillies, castor oil, ghee and live-stock; value ₹15,000.
58	*Helen Pembroke*	1,475	British ship	20th do.	North Shields	Port Blair and Calcutta	2,063 tons of coals value £41,260.
59	*Chetah*	760	British Indian ship	22nd do.	Calcutta	The Mauritius	1,120 tons of rice, dhál, and gram; value ₹1,00,000.

Waters during the year 1885—continued.

Position of wreck and name of shoal, &c.	General locality where wreck occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
Off the Dalla dockyard, in the Rangoon river	Burma coast	Sprung a leak. Not keeping watch on board.	None lost	.....
Off the village of Chengaria, near the port of Porbandar.	Káthiáwár coast	Stranding. Heavy weather	Ditto	.....
On the reefs off Abel-al-Kuri island, to the S. W. of Sokotra island.	North-East coast of Africa.	Ditto. Cyclone	Ditto	Partially lost; value ₹900.
180 miles Eastward of Aden	Gulf of Aden	Foundering. ditto	Fifty-eight lost	Totally lost.
In latitude 12° 25′ N., longitude 47° 30′ E.	Ditto	Ditto. ditto	Twenty-six lost	.....
In latitude 16° 37′ N., longitude 67° 33′ E.	Arabian sea	Ditto. ditto	None lost	Totally lost.
On the sands off Point Gordeware, entrance to Cocanada harbour.	Madras coast	Stranding. Carelessness of the master	Ditto	Ditto.
Off Rás-al-Hadd	East coast of Arabia.	Sprung a leak. Cyclone	Ninety-nine lost.	Ditto.
70 miles due West of the Port of Mangalore	Malabár coast	Foundering. ditto	None lost	Ditto.
Near the Bhagal Bara creek, Mahúva harbour	Gulf of Cambay	Stranding. Heavy weather	Ditto	Partially lost; value ₹2,000.
Near the Gazeer chur, in the Megna river mouth.	Sunderbuns	Foundering. ditto	One lost	.....
350 miles Westward of Bombay	Arabian sea	Ditto. ditto	None lost	Totally lost.
4 miles to the Northward of Rás Shenarief, one-third of a mile from the beach, in latitude 11° 45′ N., longitude 51° 14′ E.	North-East coast of Africa.	Stranding. Mistaken identity of land.	Twelve lost	Ditto.
15 miles to the Southward of the Eastern Channel light-ship.	Sandheads	Foundering. Cyclone	Thirteen lost	Ditto.
Near Green island, Bombay harbour	Bombay coast	Ditto. Stress of weather	None lost	Ditto.
Off Mount Delly	Malabár coast	Capsized. Heavy weather	Ditto	Partially lost; value not reported.
On the rocks to the Southward of Malúndi or Sindúdrug fort, off the port of Málvan.	Bombay coast	Stranding. ditto	One lost	.....
On a sand bank at the entrance to the Sávitri river.	Ditto	Ditto. Carelessness of the tindal	None lost	.....
9 miles off the village of Suváli	Gulf of Cambay	Foundering. Heavy weather	Ditto	Totally lost.
45 miles to the Southward of the Eastern Channel light-ship.	Bay of Bengal	Ditto. Bad stowage of cargo	Seventeen lost	Ditto.
(Exact position not reported)	Gulf of 'Omân	Sprung a leak. Old and rotten	None lost	Partially lost; value ₹200.
Off Howhr, 300 yards from the beach, and 108 miles Eastward of Aden, in latitude 13° 24′ N., longitude 46° 43′ E.	South coast of Arabia.	Stranding. Carelessness of the master	Ditto	Totally lost.
Off the Gun-carriage bandar, Bombay harbour.	Bombay coast	Ditto. Carelessness of the tindal	Ditto	None lost.
Near Rás Shenarief, 150 yards from the beach, 15 miles South of Cape Guardafui,	North-East coast of Africa.	Ditto. Carelessness of the master	One lost	Totally lost.
Off Shalimar point, on the Howrah side of the river.	Hooghly river	Foundering. Tides	None lost	.....
On a rock, 10 miles S. W. of Preparis Group.	Burma coast	Stranding. Cyclone	Seven lost.	Totally lost.
In 6 fathoms of water, about N. ½ W. of Pulo Remo.	Malay Peninsula	Foundering. Heavy weather	Thirty-one lost	Ditto.
On the South side of Landfall island	Andamans	Stranding. Cyclone	Seven lost	Ditto.
On a coral reef in Casuarina bay, East side of North Andaman island.	Ditto	Ditto. ditto.	None lost	Partially lost; value £780.
Bay of Bengal *(exact position not reported)*	Bay of Bengal	Foundering. ditto.	Sixty-five lost	Totally lost.

Number.	Name of Vessel.	Tonnage.	Flag and rig of vessel.	Date of wreck.	Whence bound.	Whither bound.	Cargo and its total value.
60	*Merchantman*	885	British Indian ship	22nd September	Calcutta	The Mauritius	General; value ₹70,000
61	*Tewkesbury*	1,088	British barque	Do. do.	False Point	Ditto	1,930 tons of rice; value ₹1,48,617.
62	*Neustrie*	757	French barque	Do. do.	Ditto	Ditto	Only a part of her cargo, *viz.*, 370 tons of rice; value ₹8,000.
63	*Sri Letchemy Nursimaswami*	150	British Indian brig	Do. do.	Musulipatam	Calcutta	Chillies, and coriander and castor oil seeds; value ₹8,000.
64	*Sree Ramuloo*	36	Ditto dhoney	Do. do.	Báruva	Balasore	Cocoanut oil and cocoanuts; value ₹1,000.
65	*Futtehslaam*	40	Native ganja	23rd do.	Cochin	Sirgándo	Paddy; value ₹1,175
66	*Star of Albion*	999	British barque	25th do.	Cardiff	Calcutta	1,546 tons of coals; value £30,920.
67	*Laxmi*	18	British Indian mahangiri	30th do.	Kalyán	Bombay	Rice; value ₹1,536
68	*Dharao Prasad*	23	Ditto ditto	Do. do.	Ditto	Ditto	Bricks; value ₹881
69	*Vithalprasad*	144	Native battalla	6th October	Maskat	Surat	Limestones; value ₹7,000.
70	*Bharipuri*	50	Native padow	7th do.	Ponáni	Mahúva	Teak timber and cocoanuts; value ₹13,000.
71	*Calcutta* (See Casualties No. 308)	550	British screw steamer	11th do.	Chittagong	Calcutta	General; value £10,000
72	*Hari Prasad*	70	Native kotia	15th do.	Bombay	Mangalore	Coals; value ₹2,000
73	*Comaraswamy Bakia Lekshumi*	142	British Indian dhoney	21st do.	Pámban	Calasegarapatnam.	Rice, paddy, gingelly seeds, &c.; value ₹7,000.
74	*Safer Salamati*	90	Ditto mahangiri	2nd November	Manjeshwar	Mangalore	Nuts; value ₹275
75	*Gol*	376	French barque	3rd do.	Cocanada	Réunion	456 tons of gram, seeds and oil; value ₹36,805.
76	*Kalian Prassad*	50	British Indian pattimar	5th do.	Calicut	Chiplún	Cocoanuts, cocoanut-kernels and empty casks; value ₹1,297.
77	*Barkhati*	15	Ditto muchwa	6th do.	Sadáshivgad	Mahúl	Shells; value ₹80
78	*Sackri Salamati* (See Casualties No. 321)	17	Ditto hodi	7th do.	Seaward	Korlai	Fishes and fishing nets; value ₹200.
79	*Indus*	2,199	British screw steamer	8th do.	Calcutta	London	Indigo, silk, hides, tea, &c., and specie £40,000 valued at £80,000.
80	*Charles Worsley*	1,360	British ship	13th do.	Chittagong	Dundee	1,829 tons of jute in bales; value ₹2,04,880
81	*Paikialetchemy*	90	Cingalese brig	15th do.	Kottiyar	Trincomalie	30 passengers, but no cargo on board.
82	*Hapsing*	384	British Indian barque	17th do.	Negapatam	Maulmain	Cocoanuts, piece-goods, rice, copper utensils, and ₹500 in cash; value ₹13,420.
83	*Naranpassa*	52	Native mahangiri	4th December	Calicut	Návibandar	Cocoanuts, and teak-wood logs and planks; value ₹6,700.
84	*Borpetta*	700	British flat	11th do.	Narainganj	Calcutta	900 tons of drums and bales of jute; value ₹77,840.
85	*Tangier*	1,240	British screw steamer	18th do.	Madras	London	1,878 tons of seeds, indigo, hides, turmeric, &c.; value ₹4,70,000.
86	*Cyrene*	592	British barque	19th do.	Cochin	Ditto	Cow and buffalo hides and coir goods; value £20,000.
87	*Daria Palak*	14	British Indian muchwa	21st do.	Calicut	Mangalore	Bamboos; value ₹360

Waters during the year 1885—continued.

Position of wreck and name of shoal, &c.	General locality where wreck occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
20 miles E. N. E. of False Point light-house	Orissa coast	Foundering. Cyclone	Seventy-five lost.	Totally lost.
On the sands between Luff and Temple points, False Point harbour.	Ditto	Stranding. Carelessness of the first officer.	Six lost	Ditto.
On the flats off the North-West side of Plowden's Island, False Point harbour.	Ditto	Ditto. Cyclone	One lost	Ditto.
On the beach to the Northward of Temple tree, False Point harbour.	Ditto	Ditto. ditto	Five lost	Ditto.
Ditto ditto	Ditto	Ditto. ditto	None lost	Partially lost; value ₹250.
Outside the Hajamra mouth of the river Indus.	Sind coast	Sprung a leak. Old and rotten	Ditto	Totally lost.
On the Long Sands, entrance to the Hooghly river.	Sandheads	Stranding. Carelessness of the master	Ditto	Ditto.
On the sands in the Ghatkoper creek, Bombay harbour.	Bombay coast	Ditto. Heavy weather	Ditto	Partially lost; value ₹506.
Ditto ditto	Ditto	Foundering. ditto	Ditto	Partially lost; value ₹35.
On a sand bank, near the Tápti river	Gulf of Cambay	Stranding. Tides	Ditto	Partially lost; value ₹240.
On the Shanbhu-kotha rock, outside the Mahúva harbour.	Ditto	Ditto. Heavy weather	Ditto	Partially lost; value ₹500.
Off Moish kháli, in the Kornafuli river	Chittagong coast	Collision with the steam-ship *Mahratta*. Carelessness of the master of the *Mahratta*.	Ditto	Totally lost.
On the sands off the village of Nethravatti	Malabár coast	Stranding. Carelessness of the tindal.	Ditto	Partially lost; value ₹280.
On a rock to the S. S. W. of Pámban	Gulf of Manár	Ditto. ditto	Ditto	Partially lost; value ₹3,850.
On the bar, about half a mile from the Custom house, Manjeshwar harbour.	Malabár coast	Ditto. ditto	Ditto	Totally lost.
On the coral reefs, two miles South of Pariakallar, and about 20 miles South of Batticaloa port, East coast of Ceylon.	Ceylon coast	Ditto. To prevent foundering	Ditto	Ditto.
Off Mount Delly	Malabár coast	Sprung a leak. Heavy weather	Ditto	Ditto.
Three miles South of Malván fort	Bombay coast	Foundering. Carelessness of the tindal	Ditto	Ditto.
Near Korlai fort, in the Revdanda creek	Ditto	Collision with the steamer *Bheema*. Carelessness of the master of the steamer.	Ditto	Ditto.
On the coral reefs, about 4 miles off Mullaitivu	Ceylon coast	Stranding. Neglect of lead	Ditto	Only a portion of the specie saved; valued at £2,750.
In latitude 20° 02′ N., longitude 89° 16′ E.	Bay of Bengal	Fire. Carelessness of the crew	Ditto	Totally lost.
Near Round Island light-house, Trincomalie harbour.	Ceylon coast	Capsized. Heavy weather	Thirty lost	.....
About 40 miles to the Eastward of Port Blair	Andamans	Foundering. ditto	Eighteen lost	Totally lost.
On the Undeli Pir rock to the East of Dhamlej roadstead.	Káthiáwár coast	Stranding. ditto	None lost	₹158 worth was lost.
On a snag, off Attara Banka	Sunderbuns	Ditto. Unavoidable	Ditto	Totally lost.
On a rock, 2 miles off Pettapolliem; the Tripalúr temple bearing N. W. by W. ¼ W., distant 4¾ miles.	Coromandel coast	Ditto. Carelessness of the master	Three lost	Partially lost; value ₹35,000.
On the sands at the South side of the entrance to Cochin river.	Malabár coast	Ditto. Carelessness of the pilot	None lost	Partially lost; value ₹500.
On the Northern sand spit, old or Gúrpúr mouth of the Mangalore river.	Ditto	Ditto. Carelessness of the tindal	Ditto	Totally lost.

NOTES ACCOMPANYING THE WRECK STATEMENT FOR 1885.

JANUARY.

THE British iron screw steamer MUSGRAVE [of 300 tons register, official number not reported, schooner-rigged, age one year, classed at Lloyds A 1 for 100 years], from Liverpool to Brisbane in ballast. It appeared that the steamer, a new vessel, and one of a small fleet of tugs built for the Queensland Government, left Liverpool on the morning of the 30th November 1884. The master was taking her to Brisbane on contract, intending to call only at Port Said and Colombo, but from the first the steamer experienced bad weather and had to put into Gibraltar. The *Musgrave* had had bad weather throughout the voyage, and on the 7th January, when off Cape Comorin, it was blowing a heavy gale from the N.W., and the steamer was constantly covered with water. The master steered well to the North on account of the strong N.E. winds and the current which was running to the southward. At daylight the next morning (the 8th) he found her too far North, and commenced running down the coast to Colombo. The master stated that he judged that he was 5 miles from the shore, and when about opposite Negombo, going at full speed, 10 knots an hour, the steamer struck on the northern extremity of the Rocky Ledge running nearly North and South about 2½ miles from Negombo, in latitude 7° 14′ 30″ N., longitude 79° 47′ 45″ E. (West coast of Ceylon). This rock, according to the master's account, was not marked on the chart. The vessel struck very heavily, and the afterhold was immediately sounded and 3′ of water was found in it. It was evident that the steamer must founder, and the master for that reason instantly ordered the boats to be lowered; it was no use attempting to back her off, as she would probably have gone down head first. The master then dropped the anchor to keep her in position, and started the pumps in order to try and reduce the water, as it had not at that time put out the boiler fires; this, however, was of no avail, as the vessel filled fast. All the movable articles that could be collected were then brought on deck and the men were ordered into the boats. The master started to go into the cabin for the ship's papers and cash-box, but observing her heel over, he made a leap overboard, and just at that moment the *Musgrave* slipped off the rock and sank in 6 fathoms of water. Several fishing-canoes had by that time come on the scene of the disaster, and all the floating wreckage was picked up. The crew after abandoning her pulled down the coast to Colombo in one boat, and arrived in that harbour on the afternoon of the same day. The master with a crew of 5 men in the life-boat waited by the wreck for two hours, picking up anything that floated. With the exception of two boxes so picked up and lodged in the Custom-house at Negombo, everything on board the ill-fated steamer was lost, and the crew had no clothes but what they had on. It was 10-30 o'clock in the morning

when the disaster occurred, and the vessel foundered in less than half an hour after. All the crew were safe, the cook only was reported missing, but with so many fishing-canoes round the wreck it was very improbable that he was drowned. The tops of the masts were all that was then visible of the *Musgrave*, and the spot where she went down could scarcely be seen from the shore. Attempts were made to raise the vessel, but proved quite unsuccessful, as the wire ropes and chains passed under her by the divers turned out not to be strong enough for the strain of lifting the vessel. There was very little hope left of her being raised before the S. W. monsoon set in, during which time she would most probably break up. The Lloyd's Agents at Colombo reported that salvage was a difficult operation, inasmuch as the steamer had sustained extensive damage. Endeavours were made to contract for salvage on the "no cure no pay" principle, but without success, when it was recommended that she be sold. Original value of *Musgrave*, about £12,000. She had no cargo on board. The hull with all her fittings, &c., was sold at a public auction held at Colombo on the 17th January, and realized ₹2,196. The crew 18 men; one life lost.

[A Court of Inquiry was held in the Court of the District Judge, Colombo, by the District Judge on the 28th and 30th January, and 3rd and 9th February, under the Ceylon Ordinance No. 4 of 1863, to inquire into the circumstances attending the stranding and subsequent loss of the above steamer off Negombo. The Counsel on behalf of the master argued that the Court had no jurisdiction in the matter, basing his objection on the fact that the S.S. *Musgrave* was owned by the Queensland Government and so was a Queen's ship, and not a British ship within the definition given in, and for the purposes of, the Merchant Shipping Acts in section 18 of the Act of 1854; and further, that, not having been registered either at Home or in any British Possession, she could not be recognized as a British ship under section 19. The Court recorded that, according to the master's statement the steamer was not registered, but was intended to be registered at Brisbane, whither she was bound; but he informed the Court that he received a *pass* from the Liverpool authorities, which under section 98 would have the same effect as a certificate of registry till the vessel reached her destination. Her Majesty's ships, with the special exceptions mentioned in the Acts, required neither certificates of registry nor passes, and it followed from his having obtained the pass that the master himself treated her as a British ship. The Court observed that that circumstance however, of course, could not make it one nor estop the master from showing that, in point of fact, it was not a British ship within the meaning of the statute. Although the Court was required by the Colonial Ordinance, *after* the hearing of the case was concluded, and if they suspended or cancelled a certificate, to conform in so doing to the directions contained in the 23rd and 24th sections of Amendment Act of 1862, nevertheless the power of the Court to hold the inquiry and to suspend or cancel certificates was not created by those clauses but by the Ceylon Ordinances Nos. 4 of 1863 and 6 of 1884, which were to be read and construed as one Ordinance with No. 5 of 1861. Ordinance No. 4 of 1863 gave those powers whenever any ship was lost on or near the coasts of Ceylon (a jurisdiction subsequently extended), and No. 5 of 1861 enacted that the term *ship* should include every description of vessel used in navigation not propelled by oars. There was no restriction in respect of either ownership or nationality. Those two ordinances were adapted from Part VIII (relating to wrecks and casualties) of the Merchant Shipping Act of 1854, and neither of them excluded Her Majesty's ships or any other special class of vessels from their operation. In that respect they differed from the English Act and their prototype, and also from the Ceylon Ordinance No. 7 of 1863, entitled "an ordinance relating to Merchant Shipping," which was an adaptation from Part III of the same Merchant

Shipping Act, 1854 (relating to masters and seamen). The Act of 1854 in section 2 contained the very definition of the word *ship* which the Ceylon legislature copied in the ordinances adapted from Part VIII, but the former also contained in section 4 a special provision that the Act should not, except as therein *specially* provided, applied to ships belonging to Her Majesty, and in effect those were excluded from the operation of Part VIII of the English Act. The Ceylon Ordinance No. 7 of 1863 adapted from Part III (relating to masters and seamen), also by section 97, excluded Her Majesty's ships from its operation. But the ordinances adapted from Part VIII (relating to wrecks and casualties), whilst they adopted the definition of the word *ship* as above quoted, contained no proviso or anything else to limit the general definition and its application. Whether that omission from those particular Ordinances was designed or accidental the Court could not tell, and must take the local law as they found it. The consequence, however, of the omission was that there was nothing to hinder proceedings like the present in the case of a ship belonging to any of the Colonial Governments. The Court could not admit the argument of the learned Counsel that the jurisdiction of the Court was dependent on, and appended to, that of the British Board of Trade, and founded on the Merchant Shipping Act of 1854. That Act was no law on the colony of Ceylon only so far as it was expressly declared applicable to all the Queen's dominions, which was not the case with Part VIII (relating to wrecks, casualties, and salvage). And the Ceylon law and procedure as to wrecks, casualties, and salvage was dependent solely on the ordinances of the Ceylon legislature, though following the English Acts. Similarly, the jurisdiction and powers of that Court were dependent solely on local legislation. The Court observed that for the above reasons they did not see that they had anything to do with the question whether she was a *British ship* in the meaning and for the purposes of the English Merchant Shipping Acts at all, and still less whether it was so within the meaning and for the purposes of Part II of the Act of 1854 as was contended. Even if it was the case, as was urged, that under section 18 of it ships belonging to the Colonial Government were *not* British ships for the purposes of that Part II—and the Court certainly considered that the definition of those given in section 18 did *not* include ships the property of Colonial Governments—still that would seem to the Court to be irrelevant. It was true that Part II applied to the whole of Her Majesty's dominions, but only in respect of its subject-matter; and the definition there given of a British ship was only a definition for the purposes of that subject-matter which related to ownership, measurement, and registry, but not to *casualties* (the subject of Part VIII). For other purposes than those of Part II the term "British ship" would have its ordinary and natural meaning; but it did not occur at all in Part VIII (so far as the Court had observed), throughout which the term used was *any ship*. It was only by virtue of the special proviso at the commencement of the Act, section 4, that Her Majesty's ships were excluded from the natural meaning of the words "any ship" and from the interpretation of the word *ship* in section 2, and consequently from the operation of Part VIII; but that, excluding proviso, was not adopted in the Ordinances No. 5 of 1861 and No. 4 of 1863, under which the Court was then acting. The objection to the jurisdiction of the Court was considered and overruled. The Court after a careful consideration of all that had been brought forward, were distinctly of opinion that they had no doubt whatever that the steam-ship *Musgrave* was lost on the rock laid down on the Admiralty charts as forming the northern extremity of the Rocky Ledge running nearly North and South, 2½ miles from the coast of Negombo, and near which danger the wreck lay apparently embedded in a sandy bottom; that rock was by the chart in latitude 7° 14′ 30″ N., the vessel was lying about a quarter of a mile (484 yards) from the rock very little South of due West from it and with

the steamer's head pointed to the West. From the evidence in this case it appeared that the day previous to the catastrophe the *Musgrave* was off Cape Comorin at noon, and on the 8th January was making for Colombo, and land was sighted at 8 A.M. At 10 A.M. the master, judging by the wind and presumed current, thought it probable he had got South of Colombo, and therefore turned his vessel on a northward course. He was clearly quite uncertain where he was, and his surmise on the subject proved quite erroneous; there seemed, however, no reason to blame him for this uncertainty and error up till 10-30 A.M. At 30 minutes past 10 o'clock he saw what he believed might be Adam's Peak, the bearing of which led him then to suppose that he was North of Colombo, and so he altered his course first to S. ½ E. and afterwards to S. ½ W. or South, true. At the time of the disaster, which was indubitably fixed by the clock and watch of the engineers to have occurred at 11 A.M., or within a few minutes of that hour, the master was still steering, according to his own testimony, S. ½ W., or South, true, and as he had been doing so for about 25 minutes, it followed that during that time he was steering on a course 2½ miles from the land, which was bound to take him straight on to the rock, whatever haze there may have been, as he said, over the land in the interior of the island sufficient to prevent him from getting known points for cross-bearings; it was inconceivable and incredible to the Court that at only that distance from the shore, and in the climate of the colony, he could have so misjudged his distance from it as to have imagined himself 8 or 9 miles (as he stated) from the land which he had been coasting along and in sight of from 8 o'clock in the morning. The Court observed that if the master was on deck and awake, and had normal vision, he must have seen the cocoanut trees along the beach, and the Court considered could scarcely mistake 2½ miles for 8 or 9 miles. The Court was inclined therefore to distrust the master's statement as to what he believed to be his distance from land. And in the view that he had approached within 3 miles of the coast, and was sailing due South on the very line of longitude on which the reef lay, the question seemed to the Court to be whether there was any and what degree of imprudence in his steering South on that longitude at the time the steamer struck? The Court observed that the answer to that question seemed to depend wholly on whether or not he believed, with fair reason and sufficient absence of any reason for doubt on the point, that before altering his course to the South he had previously passed the latitude of the reef and was already fairly South of it and somewhere between Negombo and Colombo. If that was a reasonable conclusion, then it was proper to bear in mind two very important facts in the master's favour. The one was, that the draught of the *Musgrave* was only 10′, and the other was that, according to the surroundings marked on the chart, there was not a spot from far North of Negombo to the Isaure rock, opposite Colombo harbour, where there was less than 5 fathoms of water outside of a mile from the beach, and mostly 6 to 8 fathoms, excepting on the Negombo reef itself, and that he could even have safely sailed over every part of that reef which had soundings of 3, 4, and 5 fathoms, excepting only the very rock on its northern extremity, on which the steamer struck, where there was only 1½ fathoms. If, therefore, he had no reason to doubt that he was well to the southward of that reef on his way to Colombo, it seemed to the Court that there was no imprudence in hugging the land at 3 miles or less from the beach, even though he might have been ignorant of his precise position. If, on the other hand, being, as the master admitted, ignorant of his precise position and unable to get cross-bearings, he was doubtful, or had any reason to doubt, whether he was certainly South of Negombo, then the Court could find no excuse for his steering due South on a line which, if he were not, would indubitably have landed him on a reef and rock plainly marked on his chart. Now, in his testimony before the Court, he stated that what he saw about half past 10 o'clock, half an

hour before the disaster occurred, and which he thought might be—and probably was—Adam's Peak, bore from him S.E. by E. It followed that if it were Adam's Peak, and if he were 8 or 9 miles from land, he must have been in latitude 7° 21′ N., longitude 79° 41′ E., and about 8 miles North of Negombo, when he altered his course, whereas if he were only 3 miles from land, he must have been, and had also at least reason to conjecture that he was, then about 5 miles North of Negombo, and in about latitude 7° 17′ 30″ N., longitude 79° 47′ 30″ E., just quarter of a mile from the long ledge of the rock. The Court recorded that, distrusting as they did the master's statement that he believed himself 8 or 9 miles from land, the Court could only arrive at the conclusion that he was guilty of gross imprudence in taking a course due South when he had such strong reason to conjecture, if not to believe, what was the actual fact, namely, that he was North of Negombo, and that that course would take him right on to, or dangerously close to, the rocky ledge. It was an imprudence which risked and actually lost property to the value of £12,000, and which risked and actually lost one human life. And this imprudence seemed to the Court to have been the greater, seeing his previous uncertainty within many miles as to his position which had made him—under the impression that he had passed Colombo—change direction to the North only half an hour before he again changed direction, this time to the South. The Court observed that they might say a few words on the theory advanced in exculpation of the master. His defence was, that the steamer did not strike on the rock near which she lay, but on an unknown rock not laid down on the charts, and supposed to be 5 miles from land. Before pointing out the improbability, as the Court considered the impossibility of this, they adverted to the fact that the account given by the master in his deposition before the Justice of the Peace and Superintendent of Wrecks, differed in some important particulars from his evidence before this inquiry. He there said that he stood in to land till about 10 A.M., and then having found that he was North of Colombo—how he found this he did not state—changed his course about S.½ W. and kept along the coast about 5 miles from land, till the steamer suddenly struck on a rock at 10-35 or 10-40 o'clock. This did not agree with what he told this Court, *viz.*, that after steering in towards the land till about 10 A.M., he then steered a northerly course up to 10-30 o'clock, being, as he judged, 8 or 9 miles from land, and then altered his course to S. ½ E., true, and kept on that course for about 20 minutes, and then again changed it to S. ½ W., or South, true, on which, he told this Court, he was till the vessel grounded on the rock at about 11 A.M., or a little after, and on which she remained up to 12 A.M., when she suddenly slipped off it. In the master's first deposition he said that the steamer floated off the rocky ledge about 11 o'clock, or a little after. Those omissions and discrepancies went far to prepare the Court to view with distrust the defence set up as to the position of the danger on which the steamer did actually strike. His theory was that the unknown rock was at least 2½ miles from the one marked on the chart, on which the Court believed that the *Musgrave* did strike, and within a quarter of a mile of which she lay. But there was one point on which he and all the witnesses agreed, namely, that she sank within a very short time, at most 10 minutes after she floated off the rocky ledge; the master in his formal deposition said she floated off about 11 A.M. or a little after and sunk immediately. The first officer stated that she sunk within 10 seconds after her floating and went to the bottom at once; a seaman, who was at the helm when the vessel struck, said that he did not think she went 15 fathoms after she left the rock; and the second engineer—an intelligent and reliable witness—gave the longest period of floating, and alleged that it was more like 10 minutes than 10 seconds before she went down. If thus the master's theory of the position of the rock on which the *Musgrave* stranded be correct, she must have drifted with her anchor down along the bottom of the sea for

about 2½ miles after she sunk, and that the Court were not prepared to believe. On the other hand, the Court considered it much more probable that before she sunk she had floated and drifted the distance of 484 yards, where she subsequently lay, from the reef. The helmsman swore that the swell carried her right over the danger, and as she was coming off the rock, she slued a little round, bringing her head more to the westward. This accounted for the direction in which her head afterwards lay, and the Court did not believe that she ever moved from the time she sunk. The Court recorded that it must be remembered that the second engineer positively stated that he started the engines again after the master told him that the vessel was floating, and though he stopped them after 8 or 10 revolutions as the water was gaining on the fires, the engines might have given the steamer some way; and allowing for the swell and other forces, the Court saw no great difficulty in accounting for her having made or drifted a quarter of a mile during the time she floated (which might likely enough have been a quarter of an hour), but the Court were quite incredulous as to her having drifted over 2 miles after she went to the bottom. The Court had already stated that they distrusted the master's statement as to his own belief at the time in regard to his distance from the land, and therefore concluded that he was guilty of gross imprudence in steering a course within 3 miles of land which might have landed him on the reef on which he was wrecked if he was not already to the southward of it; and that he had good reason to believe that he was still to the North of it. The Court observed that the Nautical Assessor was of opinion in this case that there were only two important points which required to be explained, *viz., first,* how came it that the *Musgrave* in her passage across the Gulf of Manár, made the land on the West coast of Ceylon so many miles to the North of Colombo as she did? and *secondly*, having made the coast about 30 miles North of Colombo, how came it that she was wrecked on the Negombo reef, which was distinctly defined on the chart of the coast, lying between that part of the coast first sighted and Colombo? As regards the *first* point:—the master explained that in crossing the Gulf of Manár, the weather was so boisterous that the vessel was for a time obliged to lie to, and that after proceeding again he steered a more northerly course to make allowance for a set or drift to the southward, and that on sighting land, he, believing that he was to the southward of Colombo, kept the steamer for some time on a northerly course, until, by a bearing of what he took to be a mountain in the interior, he found that he was to the northward of Colombo; thus proving that the vessel had not been set to the southward as expected. The master in this matter acted, no doubt, according to the best of his judgment, and, under the circumstances, the assessor thought that it was a prudent course to adopt, and therefore he attributed no blame to the master for making the coast where he did. As regards the *second* point: the master did not appear to have been aware of the exact part of the coast sighted; he had simply ascertained the fact that he was on the North side of Colombo, but how far he did not seem to know. It was, the assessor admitted, a difficult thing, if not impossible, for a stranger on the coast of Ceylon to determine, particularly when to the North of Colombo and out of sight of it, and especially when Adam's Peak was obscured, which was the only high land laid down on the chart that was recognizable, the exact part of the coast he was on when the land was made at a time when no observations for latitude had been possible, within a few hours of making the land; but it was therefore all the more necessary for the master of a vessel in such a position to have been careful, and not have approached the land within dangerous proximity of dangers laid down on his chart. He should, under such circumstances, have adopted all the means within his power of determining his position. The assessor observed that the master of the *Musgrave* should have reasoned in something

like the following strain: "I know that I am North of Colombo, but not how far; yet, as Colombo is not visible, I must be 15 miles or more from it: let me consult the chart and see if there are any dangers off the coast of Ceylon at that distance from Colombo to be avoided before I approach the land." Had the master of the ill-fated steamer done this, he would have found that the Negombo reef was the only danger off the coast to be avoided for many miles North of Colombo, and that by keeping outside of a depth of 9 fathoms he would have been sufficiently far off shore to have avoided that reef. The master of the ill-fated vessel did not take a single cast of the lead to verify his estimated distance off shore, but stood on a course parallel with the coast, trusting to a mere guess at his distance from land. The simple act of heaving the lead, which would at once have told him whether his estimated distance off shore was correct or not, and the only reliable test he had within his reach, under the circumstances of not recognizing any points on land to which he might have taken cross-bearings, he altogether neglected, and to this neglect solely the assessor attributed the loss of the *Musgrave* on the Negombo reef. The assessor had no doubt that it was on that reef that the steamer struck, if not on the identical rock marked in Mr. Symond's plan, and, whatever might have been the force which carried her from the rock on which she stranded to where she subsequently lay, she sunk at the spot whence she had not been drifted since. The Court observed that the Nautical Assessor had noted that the master had ascertained the fact that he was on the North side of Colombo, and must, and should, have known that he must at all events have been 15 miles from that port, and should therefore have been careful to keep sufficiently far from the land to avoid any danger marked on the chart to the North of that port till the danger was passed; that he could not have misjudged his distance from land—or at all events a safe distance from it—if he had only used the lead and kept outside of a depth of 9 fathoms; yet he did not take a single cast of the lead, but stood on a course parallel to the coast, blindly trusting to a mere guess at his distance off shore. This "simple act of heaving the lead," the Nautical Assessor said, "he altogether neglected; and to this neglect only," he continued, "I attribute the loss of the steamer *Musgrave* on the Negombo reef." He added—"I have no doubt that it was on the Negombo reef the vessel struck, and that, whatever may have been the force which carried her from the rock to where she now lies, she sunk at the spot where she now lies and has not drifted since." The Court observed that there was a general 10-fathoms line drawn on the chart all along that part of the Ceylon coast, and the sum of the Court's opinion was, that if the master did not in fact greatly misjudge the distance from land—and the Court strongly inclined to the view that he did *not*—he was guilty of great rashness and imprudence in being near to it when she struck on the reef. And, on the other hand, that if he did in fact misjudge his distance from the shore, he had no sufficient excuse for having done so, and was guilty of neglect in not casting the lead to ascertain by that method how far he was from it, and in order to keep outside a certain line of soundings until he should have sighted Colombo, or otherwise have been certain that he had passed to the southward of the Negombo reef. The Court, therefore, found and adjudged that the steamer *Musgrave* was lost, and also the life of the cook, by the default of the master. The Court recorded that objection was taken on behalf of the master to the jurisdiction of the Court, but that objection the President overruled for the reasons given above. The Court considered that the master's certificate ought to be suspended for 12 months, and it was adjudged accordingly.]

2. The British Indian padow GANESH PRASÁD [of Bombay, 35 tons register, official number 2609, age 27 years], from Bombay to Ratnagiri with a cargo of teakwood logs. The padow left Bombay at 5 o'clock in the morning of the 7th January with a cargo of timber, consisting of teak logs and nothing unusual

happened until two days afterwards. She was built at Dábhol in the year 1858, and was repaired and enlarged in 1877; her masts and ropes were new, and she had two sails, one of which was new. The padow was used principally in conveying cargo to and from vessels in Bombay harbour, but went occasionally to Ratnagiri and Chiplún; she had never carried a cargo of timber to sea before. She was loaded near Waribandar by means of a crane, under the superintendence of a person to whom the logs were to be delivered at Ratnagiri, and a serang in the service of the owner of the padow. It seemed that six logs, which were shorter than the others, were put at the bottom of the padow, and others of the logs were loaded fore and aft on two of the logs which were put across the *Ganesh Prasád* and rested on the gunwales, one forward and one aft of the mast. The logs were fastened together by means of thick ropes secured round the beams of the padow. She was loaded about 2 or 2½ cubits above her gunwales, which were a cubit and a half from the water. There was a mat-work on each side of the *Ganesh Prasád,* one cubit high, to keep the water out, and she had only two maunds of stone ballast in her. After leaving Bombay she made little water, which the crew baled out once during the day and once at night. During the day she sailed by sight of land and at night by observing the stars. All seemed to have gone well till the morning of the 9th January, when, off the port of Shrivardhan (Bombay coast), all of a sudden a strong northerly wind began to blow, and it rained slightly. The crew took in the large sail and set the small one, and not being able to withstand the effects of the squall, the tindal made for the shore with a view to save the teak logs. Whilst doing so, the padow shipped several seas and began rolling more than usual, and the crew being exhausted were unable to bale all the water out, consequently the padow became water-logged. After the *Ganesh Prasád* filled with water some of the teak logs got loose by the action of the water on them, and having slipped out of their fastenings drifted away from the padow, the crew then clung to her gunwale towards the bows. At about 10 o'clock they sighted a muchwa proceeding from the direction of Bombay, and as she was passing by, the crew raised a cry for help; the muchwa then anchored at some distance from them, and the men on board of her called out to the crew of the padow to swim towards them. The tindal stated that he was unable to do so, but three of the crew jumped into the sea and safely swam towards the muchwa. Nearly an hour afterwards one of them returned to the padow; there were then four of them clinging to the sunken padow. At about one or half-past one o'clock in the afternoon a battalla, which was proceeding to the southward, bore down on them, threw a rope to them and subsequently took them all on board, where they were supplied with food and clothes and ultimately landed at Viziadurg, thence the shipwrecked men proceeded to Ratnagiri on foot. Original value of *Ganesh Prasád,* ₹2,000; cargo, ₹1,860. The crew 6 men; one life lost.

[A Marine Court of Inquiry was held in the Fort Police Court, Bombay, by the Chief Presidency Magistrate on the 9th, 17th, 19th, and 24th February, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances connected with the foundering of the above padow off the port of Shrivardhan. The Court recorded that, after taking down the evidence of the tindal and two of the crew, they adjourned for further evidence to the 17th; summonses were issued requiring the attendance, as witnesses, of the owner of the wrecked padow and his serang. On the Court having resumed their sitting on the 17th, the police constable entrusted with the service of those summonses reported that the parties could not be found in Bombay. The Court thereupon directed farther inquiries to be made regarding the witnesses, and adjourned till the 19th. On the Court re-assembling on that day, the witnesses being present, the Court called them, and after having

heard their evidence adjourned till the 24th, in order that they might consider their decision. After a careful consideration of the evidence the Court were of opinion that the loss of the padow, *Ganesh Prasád,* was occasioned in consequence of her not being a proper boat to go to sea with the cargo she had on board; and being too heavily laden and meeting with a squall, shipped large quantities of water and became water-logged. It appeared from the evidence that she was only a cargo-boat used principally for carrying cargo in the harbour of Bombay. She was one of a class built with great beam and little draught, and consequently when deeply-laden would lay like a log on the water and not rise to the seas; and in case of a short chopping sea getting up by a sudden breeze would most probably ship large quantities of water. On this occasion she seemed to have had little or no ballast in her, and to have been loaded heavily with timber, consisting of 31 teak logs, above her gunwales, which caused her to roll heavily in anything of a sea and take in water. The Court observed that padows of that description might go up and down the coast in fair weather for years and not come to grief, provided they were not too heavily loaded. Nothing appeared to have been heard of the padow *Ganesh Prasád* or any of the logs which were loaded in her since the catastrophe. The Court recorded that it was to be regretted that one of the crew seemed to have been drowned in attempting to swim from the water-logged padow to the muchwa.]

3. The British Indian pattimar FUTHE SALAAM [of Vengurla, 13 tons register, official number 1659], from Bárkúr to Cochin with a cargo of paddy. On the 10th January the pattimar was lying at anchor about 8 miles W. by N. ½ N. of the Calicut light-house (Malabár coast). At 1-45 A.M. on the 11th, the steamship *Chindwara* whilst proceeding up the coast came into collision with the pattimar, which had no lights exhibited, and, owing to a heavy haze hanging over the water, was not seen until she was close under the *Chindwara's* bow. Measures were taken to avoid the collision, but to no avail. The pattimar, immediately after being struck, foundered in 13½ fathoms of water. The Agents of the steamer paid ₹250 as compensation to the owner of the pattimar *Futhe Salaam* towards the damage sustained. Loss, value of pattimar, about ₹1,500; cargo all lost, value ₹800. The crew, 6 men, were rescued and taken on board the steamer, whence they were subsequently landed at Vengurla. (It was reported that no Court of Inquiry was held at Madras to inquire into the circumstances respecting this collision; and that the Bombay Government, who were requested to take action in the matter, considered it unnecessary to convene a Court.)

(For an account of the Chindwara, see Casualties, No. 9.)

4. The British Indian muchwa KHENGTY [of Bánkot, 14 tons register, official number 4479, age not known], from 'Antora to Harnai, with a cargo of paddy and cash ₹748. At 8 P.M. on the 13th January the muchwa, whilst entering the harbour of Harnai (Bombay coast), came into collision with the steamer *Shastri* off the Harnai fort, owing to the *Khengty* not having kept her lights burning. She subsequently filled with water and sank. Loss, value of muchwa, ₹400; cargo, ₹1,084. The crew, 5 men, and one passenger, were picked up by the steamer *Shastri* after the accident and conveyed to Bombay.

(For an account of the Shastri, see Casualties, No. 11.)

5. The Native bagla PEEDARUT [of Cutch, 140 tons register, official number 966], from Maskat to Anjar with a cargo of dates and cotton seeds. On the 14th January the bagla, in consequence of a strong gale, anchored on the East side of Gwádur Bay (Makrán coast); at 3 P.M. she parted her cables and drifted ashore near the hill and finally broke up. Loss, value of bagla not known; cargo, worth ₹3,000, was lost, and the remainder damaged. The crew, 8 men, and 3 passengers, were saved in the bagla's boat.

6. The British Indian pattimar LEKSHMINARANAPRESAD [of Cochin, 28 tons register, official number and age not reported], from Cochin to Molky in ballast. She left Cochin on the previous night and arrived off Chowghât at about 3 A.M. on the 14th January, when having experienced unusually strong winds, she drifted on to the shoal abreast of Chowghât port (Bombay coast), and eventually broke up. Value of pattimar not reported. No cargo on board. The crew saved themselves by getting into the pattimar's boat.

7. The British Indian dingy FATTEH MÚBÁRAK [of Kurrachee, 115 tons register, official number 163], from Kurrachee to Bombay, with a cargo of wool, cotton, &c. The owner of the dingy stated that the craft left Kurrachee on the 14th January with 4 passengers on board, besides a crew of 18 men. Native craft leaving Kurrachee for Bombay are generally reported in about 12 days; but as the owner received no intimation of the arrival of the dingy, he telegraphed to the Agents at Bombay on the 28th, and received a reply to the effect that the *Fatteh Múbárak* had not yet arrived. A wooden water-tank belonging to the missing dingy was picked up at sea about 40 miles from Kurrachee. Nothing had been heard of her since her departure, the owner therefore concluded that she must have foundered during the heavy weather which prevailed on the coast of Sind on the 16th January. Value of dingy and cargo not reported. The crew, 18 men, and 4 passengers, were drowned.

8. The American wooden barque REVELLO [of Annapolis, Nova Scotia, 937 tons register, official number 69697, age 9 years, classed 3/3 L. I. I. for 11 years in the Veritas Register; she was opened out in 1880 and repaired in 1882, and again caulked and re-metalled in 1884; it therefore appeared that the vessel was in good repair at the time the disaster took place], from Greenock to Rangoon with a cargo of 1,355 tons of steam coals, valued at £621, consigned to the Irrawaddi Steam Flotilla Company. The master stated that when the barque left Greenock on the afternoon of the 7th October 1884 he shipped three ventilators for use on the voyage, and they should have been fixed in position before she started, but nothing was done with any of them until the *Revello* passed the Island of Madeira, when one of them was fixed in position through the fore-house, and served the purpose intended. About a week or ten days later a second ventilator was placed aft through the main deck, and near its lower end there was a grating which communicated with the lower hold and thereby enabled it to serve its purpose satisfactorily. There was a great conflict of evidence as to the time when the ventilators were brought into use; the first officer positively stated that it was 18 days after leaving Greenock that the first ventilator was placed and that a second one was taken into use between 40 or 50 days after sailing, whilst it was alleged by the carpenter and four of the crew that after being about two months at sea one out of the three ventilators was fixed, and that this was done under the carpenter's supervision. It was not till a month later that another ventilator was used. All the witnesses swore that the third ventilator, which was intended to ventilate the main hold, was never brought into use. It appeared that the centre part of the vessel was occasionally ventilated by means of the hatch communicating with the pumps, and the booby hatch was moreover entirely left open during the voyage, but the main hatches were not removed till after the discovery of the fire. All went well until the 23rd January, when shortly after crossing the equator the coals took fire, but the master succeeded in reaching Nancowry, one of the islands of the Nicobar Group. The carpenter stated that on the 20th January he first discovered that there was fire in the cargo amidships and at once informed the master. On that day whilst the barque was off the West coast of Sumatra Island in latitude 1° 42′ N., longitude 94° 48′ E., the master swore that for the first time he observed steam issuing from the hatches fore

and aft, and from the gaseous emanations he concluded that there was reason for apprehending that there was fire in the hold. From an examination made by the master and the first officer after proceeding down into the hold, they were of opinion that the fire was caused by the combined effects of the dampness of the hold and the intense heat on the decks. On the following morning, when the master came on deck the carpenter drew his attention to the condition of the forehold; they perceived steam similar to that found on the previous day, but at this time it was mixed with smoke. The master at once summoned his first officer and told him to have the hatches removed fore and aft, as he believed the cargo was on fire. This was done, after which the first officer and the master descended into the main hatch and found smoke issuing out of the cargo on the port side. Thereupon the master ordered the hatches to be put on and battened down and at the same time had the decks bored from the after part of the main hatch to the after part of the forehouse on the port side. He then plugged the scuppers and flooded that portion of the decks. These measures seemed to have been continued unabatingly up to the 25th January. On that day the master stated that he then ordered off the main hatch, when it was observed that the fire and smoke were more extensive, and in consequence of which he directed that a portion of the cargo be jettisoned from the main hatch on the port side, in order to discover the seat of the fire, the master making at the same time an offer to the crew of a month's extra pay if they succeeded in extinguishing it. Every exertion was accordingly made by the men from the 27th until the 30th to subdue the fire, the vessel keeping on her usual course; but on the latter date all attempts being ineffectual, the master decided to beach her for the purpose of saving life and property. On the 28th, at 10 A.M., the master spoke the steam-ship *Strathairly*, bound northward, inquired what assistance she was able to afford. On being replied that she could only take all hands off, the master of the *Revello* declined the offer, because he felt hopeful of reaching either Port Blair or Bassein before abandoning the vessel. Through the omission of the master to place a look-out on deck, the barque on the evening of the 29th struck on the reefs off the Island of Irak to the N.W. of Little Nicobar Island, and got off again after an interval of half an hour. There was also a conflict of evidence as to how long the *Revello* was aground on the reefs on the 29th. The first officer stated that it was about five minutes, the carpenter and one of the crew said it was half an hour, whilst two other witnesses alleged that it was fifteen minutes. The shaking, &c., of the cargo caused by this accident did a great deal to increase the strength of the fire, but for this the master might perhaps have had time to bring his vessel into Port Blair. One witness stated that when the barque grounded on the 29th the master was in his cabin the worse for liquor, whilst another said that he was asleep at the time, but ran up at once and issued orders; the first officer was supervising the men working the pumps. At about noon on the 30th the fire burst into flames under the forehouse, thus rendering it certain that there was no farther hope of saving the vessel. After a consultation with the first officer and explaining matters to the crew, the master resolved upon running the vessel ashore as near as possible to the harbour of Nancowry, as the crew were unable to stay on board any longer owing to the heat, and being exhausted through fatigue, and the master hoped by so doing to scuttle the barque under the most favourable circumstances possible. At 2 P.M. that same day the master ultimately succeeded in stranding the vessel near the western entrance, and landed all hands without any accident; he failed, however, to save a great portion of his private effects, together with the vessel's papers. An hour afterwards the *Revello* was in flames fore and aft. The master, early on the following morning, proceeded to Nancowry in a canoe belonging to the natives, for the purpose of reporting the disaster and also to obtain help. By the assistance of the

Government officials and the convicts on the island, about 117 tons of coals and some light iron-work that it was found practicable to remove were saved, but the barque burnt to the water's edge. Original value of *Revello*, £7,000; cargo worth £117 was saved, and the remainder was destroyed. The crew 17 men. No lives lost.

[A Special Court of Inquiry was held in the Court of the Magistrate, Nancowry, on the 9th, 10th, 11th, 16th, and 19th February by the first class Magistrate, in charge of Nicobar Islands, under the provisions of sections 8 and 9 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances attending the total loss by fire of the above vessel. The Court recorded that on the 9th February they first made a preliminary inquiry under section 7 of the above Act, taking the evidence of the master, the first officer, the carpenter, and four of the seamen, whose evidence appeared to be material. On reading the papers received with the Resolution of the Commissioner appointing the Court, it seemed to the Court in the course of the preliminary investigation that there were sufficient grounds for framing charges against the master, and the Court thereupon framed a charge against the master, charging him as follows: "Inasmuch as it appeared from the depositions given that the British barque *Revello,* laden with coals and bound from Newcastle to Rangoon, took fire and was run ashore by the said master on the Island of Nancowry, where the said vessel became a total wreck; and inasmuch as it further appeared that the said loss was caused by the incompetency or misconduct of the said master in not having made a proper use of the ventilators which were on board the said barque, and by other wrongful act or default." It seemed also that this investigation was likely to involve the consideration of the question as to the cancellation or suspension of one or more of the officers' certificates, it was necessary for the Court, in pursuance of section 13 of the above Act, to appoint two assessors, when the Court adjourned for that purpose until the next day. On the Court re-assembling on the 10th, they constituted as their assessors two persons being conversant with maritime affairs—one, the officer commanding the Indian Marine steamer *Kwangtung,* and the other was the first officer of the same vessel, both of whom held master's certificates. A copy of the statement of the grounds upon which such charge was framed and of the charge itself was then handed to the accused, and the Court adjourned for the trial of the charge till the 11th February. On the assembling of the Court on that day the accused (master of the barque *Revello)* submitted a verbal protest in respect to the competency of the commander and first officer of the Indian Marine steamer *Kwangtung* to serve as assessors in this investigation. The Court thereupon overruled the objection and directed that before the conclusion of the evidence the protest be handed in writing by the accused which would then be recorded. After recording the evidence of the first and second officers, the carpenter, four seamen and the steward, the remainder of the seamen (6 men) were summoned and asked by the Court whether, having heard the evidence, any of them desired to make any statement relating to the inquiry. One and all of those seamen thereupon replied that they were satisfied, and that all the facts relevant to the subject-matter of the investigation had been deposed to by the witnesses already examined, and that they consequently had no wish to make any statement. The Court after the termination of their evidence called upon the accused to present in writing the protest aforementioned for the purpose of recording. In reply the accused stated that he then desired to withdraw the protest in question, when the Court further adjourned to the 16th February, in order that it might consider its finding. On that day, after consideration, the finding of the Court was read to the accused by the Court, when they finally adjourned until the 19th for the purpose of delivering its decision on the finding. The Court recorded that from the evidence elicited in this investigation it appeared that the coal was

described as having been dry and shipped in dry weather, and the loading was duly carried out under the supervision of a Board of Trade Surveyor, who seemed to have granted the usual certificate. How far this document referred to the completeness of this vessel's *equip,* or was granted subject to a proviso respecting additional ventilation of the barque on, or soon after, leaving port, it was impossible then to say as it was not forthcoming, having apparently been lost in the surf together with all the vessel's other papers and books when an attempt was made to land the same shortly after the beaching of the barque on the 30th January. It was clear that no special arrangements were made for ventilating the cargo at the time of loading, the only precautions that were observed on this subject being to provide three ventilators for use at the commencement of, or during, the voyage, at the discretion of the accused, who stated that he had never before sailed in a vessel with a complete cargo of coal on a long voyage, whilst he elsewhere remarked that the *Revello* had been principally employed in the petroleum trade. The Court observed that the incidents on the voyage relevant to the charges directed to be investigated were shown to have been as follows: (1) About a month after leaving the port of Greenock steam was first observed to issue from the fore hatch. The hatches in that part of the barque were then removed, and after some hours the steam subsided; (2), about a month subsequent to the above occurrence the first ventilator was brought into use and fixed in through the fore end of the forward house, penetrating into the hold (according to the statements of the accused and his first officer, this occurred shortly after passing Madeira, or when only some 18 days out); (3), a third month appeared to have elapsed before a second ventilator was made use of, and this was placed through the poop deck, and reached to within three feet of the grating in the afterpart of the lower deck (according to the statements of the accused and his first officer, this second ventilator was put down about 40 or 50 days after leaving Greenock); (4), a few days later, *i.e.,* on or about the 20th January, the discovery of the fire in the cargo was first made by the carpenter and reported to the accused, who lost no time in taking all necessary steps in his power; (5), on the 28th the barque spoke the steam-ship *Strathairly,* the master of which offered to take off all hands from the barque and thereby leave them to abandon their vessel. The accused being at that time still hopeful of saving the barque declined the offer, against which decision no remonstrance was made by any one on board; (6), on the following day, the 29th, at 7-30 A. M., the *Revello* ran on to a reef near the N.W. extremity of Little Nicobar. There was no look-out at the time, and the watch were busy at the pumps. After some little time (the statements differed from *five minutes* to *half an hour)* the barque slid back into deep water without having apparently suffered much damage to her bottom; but some of the witnesses agreed in asserting that the shock and subsequent swaying from side to side of the vessel whilst on the reef disturbed the cargo to such an extent as to strengthen the grasp which the fire had previously gained on the coal, producing, in fact, the same effect—to use their words—"as stirring a coal-fire with a poker." The Court observed that it should be mentioned that two witnesses (seamen) stated that the accused when he came on deck shortly afterwards, and in consequence of the accident, appeared the worse for liquor. This statement was, however, not satisfactorily supported in any way, whilst others spoke of the master of the *Revello* as appearing merely fatigued as from the result of his previous prolonged exertions, as well as anxieties in respect of the fire; and (7), the next day, the 30th, shortly after noon, the accused having vainly endeavoured to extinguish the fire, or to enter the harbour of Nancowry, and finding parts of the vessel itself in flames, ran the barque aground on the West coast of Nancowry Island, as near as he could approach to the western entrance of that harbour. That this extreme measure was not taken a moment too soon was shown by the difficulty

that was experienced in landing the crew and all portable property before the barque was enveloped in flames. Owing to the surf and the necessity for using all despatch in landing the various packages which had been rescued from the burning vessel, a valise said to contain the ship's log-book and other papers, together with some valuable effects belonging to the accused, appeared to have been lost in consequence of the capsizing of the boat in which it was being conveyed ashore; and in spite of every endeavour being subsequently made it had not been recovered. Assistance was afforded by a party of Nicobarese who were soon attracted to the spot; and at about 2 o'clock on the following day (31st January), the accused and every one of the seamen proceeded in a Native canoe to the Government station in Nancowry harbour—distant about 4½ miles from the scene of the wreck—and obtained all necessary assistance for the conveyance thither of the recovered property landed on the previous day, the crew meanwhile proceeded in the vessel's boats to the station, where accommodation was provided for them as well as rations according to the scale regulated for Europeans, with orders for the continuance of the same during the period of their enforced detention. During the following week (*i.e.,* till the 7th February inclusive) the Government boats at the station were, on the application of the accused, employed in saving from the wreck and conveying to Nancowry 117 tons of damaged coals and light iron-work which was found practicable to remove. Although, as stated by the accused, the missing certificate granted to him by the Board of Trade Surveyor was to the effect that the cargo was well stowed and sufficiently ventilated, the fact remained that, in spite of fine weather having been experienced on the passage, and notwithstanding the significant fact of steam being observed to issue from the cargo about a month after sailing on her voyage, he not only omitted to make use of any of the ventilators in the manner recommended by the surveyor until the lapse of several weeks, and even then, throughout the voyage, the third and apparently the most important ventilator was not utilized at all, but, as admitted by himself, he also neglected to open the main hatches until after the discovery of the fire in the hold which occurred shortly after the aft ventilator had been brought into use, and no less than 3½ months after leaving port. With reference to the running on the reefs off Little Nicobar Island on the evening of the 29th, the accused stated that, under the circumstances in which he was placed, he was compelled to keep the barque as near the shore as possible for the safety of life and property, and that before retiring to his cabin he gave a course which he imagined would clear all dangers. The master attributed the disaster, *firstly,* to the attention of the first officer being fully occupied in supervising the men at the pumps; *secondly,* to some current of which he was unaware in consequence of his being possessed of no large scale chart of the Andaman and Nicobar Islands; and *thirdly,* to the inattention and bad steering of the man at the wheel, who was fagged out and probably half asleep. When questioned why the master did not run to Acheen on the North coast of Sumatra Island on, or after, the 20th January *i.e.,* soon after the discovery of fire in the hold, and when in the vicinity of that port, the accused gave a reasonable explanation for this seeming omission by stating that from the books and information in his possession, he gathered that the place was a Native Government, and, moreover, not friendly to Europeans, as evidenced by the recent case of the stranding of the steam-ship *Nisero.* Finally, with reference to the loss of the ship's books and papers: considering the serious discrepancies between the statements of the accused and all the principal members of his crew (save the first officer) in respect to the period which was allowed to elapse before the ventilators were brought into use, it cannot but be a matter of regret that the master took no special steps for the safe landing of those important documents, which afforded a colourable excuse for the veiled insinuations of certain of the

witnesses that the papers in question were not lost or made away with without some reason. Such being the facts as presented by the evidence elicited at the inquiry, the conclusions at which the Court arrived at were as follows: (I), that in his omission to make use of the ventilators provided on the recommendation of the Board of Trade Surveyor at Greenock on, or soon after, leaving that port, and in his failure to observe the obvious precaution of keeping the main hatches open whenever practicable, to which acts of neglect the outbreak of the fire on board and the loss of the barque *Revello* with almost her entire cargo were manifestly and solely attributable, the master displayed a grave error of judgment; (II), that under the exceptional circumstances in which he was placed, and taking into consideration the reasonable pleas raised by the accused, the accident whereby the *Revello* ran on the reefs on the evening of the 29th did not appear to have been the result of any grave act of negligence on the part of the master; whilst in the absence of any satisfactory evidence in respect to the charge of his being the worse for liquor on that occasion, the Court were of opinion that the said charge was groundless, and seemingly due only to malice on the part of the witness on whose testimony it originated; and (III), that in losing his vessel's papers whilst able to save other portable property in his charge at the time of abandoning the barque on the 30th, whilst there was no positive proof of "misconduct" on the part of the accused or others in this matter, blame was attributable to the master in having failed to make it his special object to ensure the safe landing of the papers in question. The Court observed that one of the assessors was of opinion, *firstly,* that if, as stated by the master, a certificate, to the effect that the cargo of the vessel was well stowed and ventilated sufficiently, was granted to him by a Board of Trade Surveyor, the master was justified in leaving the port of departure as he did with the vessel, but was guilty of negligence in not having at once fixed the ventilators which he had procured at the recommendation of the Board of Trade Surveyor in the positions that officer had pointed out to him. His reason for not having done so was, that the weather was fine and that he was able to keep the hatches open; but the evidence proved that even this precaution was not fully carried out, as the main hatches were never removed during the voyage until the cargo was actually on fire. Had the ventilators been placed and all hatches removed when practicable, it seemed probable that the fire might have been prevented. *Secondly,* with regard to the barque stranding on the reefs presumably off Irak on the evening of the 29th, the assessor was of opinion that as the vessel was among, and in close proximity to, rocks and islets in a locality imperfectly surveyed, and where strong currents were known to prevail, carelessness was shown in not having a lead going and some responsible person on the look-out if it was absolutely necessary that the officer of the watch should leave his post upon the poop for any purpose whatever. The assessor taking, however, into consideration the whole aspect of the case, and that the imminent danger the barque was in from fire must have rendered the extinction of it the one engrossing and paramount idea in the mind of the master to the almost utter exclusion of any other; and remembering also the fatigue and anxiety to which he had been subjected, the assessor was of opinion that too much stress should not be placed upon what, under other circumstances, would have been culpable negligence and a total disregard for the safety of the *Revello. Thirdly*, the loss by the first officer on the one hand of the ship's log-book, and of all the vessel's papers by the master on the other, did not appear quite satisfactorily explained, as, having in view that for nearly a week the great probability that the barque would have to be suddenly abandoned must have presented itself, it seemed strange that no steps whatever were taken by either the master or his first officer to provide for the safety of those important documents. The master stated that only just before leaving the vessel

he placed the ship's papers in a valise together with other papers, clothes, and a plated revolver of his own, which valise, he also stated, was subsequently lost. The valise was kept by him together with several other packages in a boat which was in charge of the carpenter. The first officer also did not appear to have taken any steps for the security of the ship's log-book beyond merely placing it on the deck near some other articles waiting to be put into the boats when the barque was being abandoned. *Fourthly,* as regards the statement made by the witnesses (two able seamen) that the master was the worse for liquor on the occasion of the vessel going ashore, the assessor believed the same to be unfounded. *Fifthly,* the assessor was of opinion that after the barque was discovered to be on fire that the master behaved well and prudently, and by his example gave confidence to his crew, and that he did his utmost to extinguish the fire, and that he remained by the vessel, continuing his efforts until it was plainly seen by the flames bursting out they were futile. That the greater credit was done to the master, considering that an opportunity of abandoning the vessel presented itself when the steam-ship *Strathairly* was spoken two days before the final catastrophe occurred. The assessor considered also that he acted with judgment in having beached the vessel as near as he could to where he knew there was a British settlement. The Court observed that the other assessor was of opinion that, as regards the taking of precaution against the outbreak of fire in the cargo of coal, the master should have got the whole of the surface ventilators into position directly the shipping of the coals were completed; also that he should have caused the temperature to be taken and registered daily and paid more attention to the raising of all hatches whenever he was able to do so. It was stated by the master that the Board of Trade Surveying Officer mentioned in a general certificate that the vessel was completely equipped in every respect for sea service. If such was the case, the assessor did not consider him to blame entirely, not having trunkways penetrating the coals in the hold towards the keelson as were used in many vessels conveying coal cargoes. With regard to where the fire broke out, or when he even saw an indication of its doing so, the assessor was of opinion that after jettisoning a portion of the cargo, thereby giving more room, the crew should have been employed in turning the coals over with shovels. On the evening of the 29th the barque unfortunately struck on the reefs or rocks near the islet of Irak, on which it seemed she lay for only a short space of time, say 15 minutes, before sliding off again. With regard to this, the assessor observed that the Nicobar Islands were imperfectly surveyed, as the assessor who had considerable experience of them could testify to, although, at the same time, the fact of there being no lead going—hand or deep sea—and so close to land appeared inexcusable, and all that could be said in defence of this neglect seemed to be that it was owing to every available hand being required to keep down the fire. The assessor did not believe that the master was under the influence of liquor on the evening of the 29th as given in the evidence of the two able seamen. As the master perceived that the fire was gaining the upper hand after several days of great toil and exertion, the assessor was of opinion that he could not have done better than beach his vessel where he was able to land all hands and communicate with the settlement of Nancowry near at hand. With regard to the loss of the log-books in charge of the master and the first officer respectively, the assessor was at a loss to know why such valuable documents, as well as the other ship's papers, were not taken care of, as they could have taken up very little room amongst all that was landed from the wreck; and the assessor consequently considered that the statement of the master and the first officer with regard to them were not satisfactory. The Court, agreeing with the assessors, desired at the same time to place on record an expression of their opinion that whilst on the two points above noticed the conduct of the accused on the occasion

of the late voyage of the barque appeared to have been culpable, it was impossible to withhold praise and admiration of his behaviour throughout the anxious period of 10 days during which he was striving with a burning cargo to run his vessel into the nearest friendly port, declining even an opportunity which presented itself when the case had become almost desperate of leaving the barque and transferring himself with all on board to the steam-ship *Strathairly* on the master of that steamer offering to take off all hands. The Court observed that no little credit was thus due to the accused, who was thereby shown to have had at heart the best interests of those concerned in the ownership of the property in his charge, whilst the measures which he adopted, when made aware of the danger with which the vessel was threatened in keeping as near the shore as possible, showed that the master was also mindful of his responsibilities in respect to the security of the lives of those under his charge. The Court then adjourned till the 19th February, when they delivered their decision on the finding at which they had arrived in respect to this case. On the Court assembling on that day, the accused being present and having produced his certificate as master, the attached written opinions of the assessors, and the conclusions of the Court, were read to the accused by the President. The Court having carefully weighed the conclusions arrived at in this Inquiry, directed that the master's certificate granted to the accused be suspended for a period of six months, with effect from the 30th January.]

FEBRUARY.

9. The Dutch iron screw steamer NEDERLAND-EN-ORANJE [of Amsterdam, 1,514 tons register, official number not reported, age 2 years, brig-rigged, classed at Lloyds 100 A1], from Amsterdam to Java with 3 passengers and about 1,500 tons general cargo. It appeared that on the 30th January the steamer put into Aden with machinery disabled for examination and repairs. On the 1st February the steamer was lying at anchor in the Outer harbour of Aden in $4\frac{3}{4}$ fathoms water (South coast of Arabia). The weather being fine and the wind calm, the tide was low water and the sea moderately smooth. At 3 A.M., the German steamer *Amalfi,* when attempting to leave Aden harbour without a pilot, ran into the steamer *Nederland-en-Oranje,* striking the latter vessel on the port side, amidships. The *Amalfi,* it was reported, got under weigh before her steam was quite ready, and could not go astern at once when ordered to do so. The *Nederland-en-Oranje* had a vertical hole 14′ × 10″ extending to about one foot below the surface of the water, which caused her to leak, and in the course of 10 minutes she filled and sunk, with her cargo all on board ; the hatches blew off and the cargo began to float out of the hatchways. The master stated that on the 4th the aperture was planked over and on the 7th attempts were made to pump her clear, the bunker cargo hatches were caulked, but the work of pumping was delayed owing to bad tides. On the 10th the steamer was pumped dry to the engine-room plates, but the stern not lifting the vessel filled again. In the meantime a portion of the cargo was discharged, and the Surveyors anticipated no danger of the steamer breaking in lifting, as the deck was not cut into. She then remained submerged, lying on a bottom of sand and coral in $4\frac{3}{4}$ to 5 fathoms of water until the 17th of February, when, at 4 P.M., she was successfully raised and towed into the Inner harbour and nearer shore, the cargo was got out as rapidly as possible, and the pumping vigorously continued. About the 6th March the cargo was completely discharged, and was subsequently sold at auction, but for what amount was not reported. The steamer after having been surveyed left Aden in tow of the British India Steam Navigation Company's steamer *Sirdhana* for Bombay,

where she arrived on the 20th, in ballast. On the 21st April the Surveyor to Lloyd's Agents, accompanied by a Marine Surveyor, proceeded on board the steamer *Nederland-en-Oranje,* lying in the Peninsular and Oriental Steam Navigation Company's graving dock at Mazgáon, in order to make a survey on that vessel, to ascertain what damage she had sustained by a collision with the steamer *Amalfi* in Aden harbour early on the morning of the 1st February; also to enable the Surveyors to answer the following interrogatories and points: (1) was it possible to put the steamer and engines into the same good condition as they were in before the accident; (2) if not, why not; (3) to report on the damage done to the vessel and engines, so that an estimate of the repairs could be made; (4) the steamer to be repaired in a first class manner and handed to the owners in Aden harbour; (5) to state the value of the ship as she lay; and (6) what course was the best to be adopted for the benefit of the concerned without very heavy expenses. The Surveyors having made a careful examination of the vessel outside, reported that they found on the starboard side, the plates, the butts, and the landings all in good order (the paint was more or less rubbed off in the flat of the bottom amidships); and advised that at this part all the rivets, both of the landings, the frames, and the keel rivets, be carefully tapped, sounded, and examined. On the port side they detected a patch put on at Aden from the gunwale to five plates down the side; the Surveyors recommended the patch to be stripped and renewed, as far as practicable, for the safety of the vessel, and all the packing, cement, &c., to be removed so as to permit a clear examination of the damage. They stated that the plates in several places on the port side were indented, and the second landing from the keel, with a number of loose rivets in, the rivets to be all taken out in that landing nearly right fore and aft, and the same where the plates were indented; several butts also should be overhauled; three injection roses carried away, to be renewed; the propeller and rudder seemed to be intact and quite uninjured; in the afterhold discovered a patch on the port side abreast of the hatch, which the Surveyors advised to be cleared away for further inspection; the whole of the iron shell of the vessel, the frames, the stringers, and, in a word, all the iron-work, was badly rusted; all the shifting boards damaged; and the lining boards to be carefully marked and numbered and then to be removed, in order to allow the steamer to be thoroughly cleaned and re-painted; the same in the forehold and all the inside of the vessel thoroughly cleaned and re-painted; all the permanent wooden lining and flooring to be removed in all the holds, and the engine-room for cleaning and painting purposes; some planks of the main deck to be taken out to ascertain the condition of the iron deck beneath; the upper deck had received only little damage, but in the alleyways amidships it had been raised in places caused by pressure from below when the steamer filled and the hatches blew off; in the poop cabin they found the water had been up to the deck on the port side, and 2½′ up the cabin fore and aft bulkheads on the starboard side; the poop to be all thoroughly cleared out, the wood-work to be thoroughly repaired, and the whole re-painted and refitted. The Surveyors advised that a list be made of all the cabin, ship's and engineer's stores and fittings damaged or lost, and the remains of any damaged stores to be shown to the Surveyors for identification; in the forecastle the port side had been all under water, but it had been cleared and made habitable for the crew; in the engine-room the engines were in a filthy and rusty condition, as also the boilers, and they referred to the Engineer Surveyor's report especially on those. The Surveyors stated that as the *Nederland-en-Oranje* proceeded out of dock on the evening tide of the 21st April, the above report should only be considered preliminary, and until the above recommendations were carried out, they would be unable to reply to the interrogatories and points 1 to 5 on which their opinion was asked; but as regards the sixth point the Sur-

veyors were of opinion that the holds should be thoroughly cleared out to allow of fuller and final inspection all over the inside of the vessel and tanks; that the engines should be all taken to pieces for examination and the engineer's suggestions carried out, when they would then, on a further careful inspection, be able to point out the best course to be adopted for the benefit of the concerned. On the 21st April an Engineer Surveyor proceeded on board the steamer *Nederland-en-Oranje* for the purpose of examining what damage was done to the machinery and boilers by reason of the vessel having been in collision and submerged in Aden harbour for about 17 days. After a careful survey it was found that the different parts of the engines had very much rusted, and in consequence, at the time of that visit, the Engineer Surveyor could not examine the parts to enable him to find to what extent they were damaged, and therefore requested that the pistons and piston rods, the slide valves and rods, the connecting rods, the pump buckets, the rods, the reversing gear, the starting gear, and all other small gear, be taken to pieces and laid on deck, and the rust thoroughly cleaned from them, so that they might be minutely examined, in order to ascertain what damage they had sustained; the crank shaft to be lifted sufficiently high for the purpose of having the bearings examined, and all the bolts removed from the tunnel shafting; the propeller to be taken off, and the propeller shaft withdrawn from the stern tube, and everything in connection therewith thoroughly cleaned; the cylinders and casings, the condenser and bed plate, to be cleaned for the same purpose; all the fire-bars and bridges of the boilers to be removed, also the furnace doors and fittings; the outside covering of felt taken off; all manhole and sludge doors removed, and the boilers thoroughly cleaned, both internally and externally, as it was impossible to state in what condition they were in, being so badly rusted. The Engineer Surveyor stated that after the above suggestions had been carried out, he would be in a position to examine the machinery and boilers, and report as to what repairs and renewals were necessary to place the steamer in such a condition as to enable her to be restored in Lloyd's Register, and to reply to the various interrogatories and points asked for. The outlay at Aden on the steamer and cargo were approximately estimated to be ₹86,000 and at Bombay ₹14,000. Original value of steamer *Nederland-en-Oranje,* about £30,000; cargo £45,000. The steamer was subsequently condemned and sold by public auction at Bombay on the 18th July, when the hull, fittings, stores, &c., realized ₹1,01,000. The crew 35 men, and 3 passengers. No lives lost. (The above details were principally compiled from private sources, and beyond that no further particulars of the wreck could be obtained by this Department from Aden and Bombay. A Court of Inquiry concerning the above collision was held at Hamburg, but its result had not been reported.)

(For an account of the Amalfi, see Casualties, No. 29. It was subsequently reported that the Nederland-en-Oranje was thoroughly surveyed at Bombay, and after having been repaired by the present owners was sent to sea again.)

10. The British wooden light-ship MERMAID [of Calcutta, 247 tons register, age 17 years, belonging to the Calcutta Port Commissioners] was employed as the Intermediate light-ship at the Sandheads. The vessel was lying at her station, halfway between the Lower Gaspar and the Eastern Channel light-ships, in 7 fathoms of water in latitude 21° 14′ 45″ N., longitude 88° 11′ 0″ E. It appeared that the *Mermaid* had been at the Sandheads since the 25th January 1884, and that the crew, with the exception of the serang, had joined the vessel only a few days before the disaster. She had on board 2 officers and 27 crew; the first officer joined the vessel on the 2nd January 1885, the second officer a month previously, the master being on three months' leave. The first officer stated that on the 30th of the same month he superintended the stowage of the rice—for the crew's provision—whilst being transferred from the River Surveying Steamer *Resolute* to

the *Mermaid*. All the dry bags of rice that were stowed were kept in the usual place in the gun-room, there being then no smell whatever. But a large quantity, which got wet in course of shipment, were placed in the 'tween decks at the other end of the vessel. There was no light in the gun-room whilst the crew were working there, but a hatch which was removed afforded sufficient light. At 4 P.M. on that day the gun-room hatch, which was right aft on the port side in the master's cabin, was not locked, but it was put on, and after that time until the fire broke out no one seemed to have gone to the gun-room at all. There was a grating of battens or palings dividing the gun-room from the after-hold; on the forward side of this water tanks were stowed right across the vessel into the wings, and on top of the tanks were kept stores and a number of old boxes, two of which contained about 40 condemned rockets. The gun-room of the light-ship contained, in the forward end of it, a quantity of rice stowed in bags, and at the after end a copper magazine (which is a fixture), holding 106 one-pound gun charges; there were also a quantity of unmixed red-flare composition in two tin packages covered over with canvas and gunny—one containing the charcoal being stowed on one side of the room, and the second tin holding the strontium being placed on the other side of the room. There were also in the gun-room two boxes containing iron-ware and a box of glass chimneys, and over the kentledge a few hides for stowing the rice on. The oil was kept in the oil-room forward, and the cotton waste in the sail cabin, which was situated amidships. On the night of the 31st January the station light was not lighted; there was a globe light burning in the saloon all night, another in the second officer's cabin, and one in the lamp-room. The second officer went on watch that night at 8 o'clock and remained on deck until midnight, when he was relieved by the serang. He went down in the fore cabin at 10 P.M., but noticed nothing, and an hour afterwards the first officer came on deck, but turned in again. The second officer stated that when he turned in at 12 o'clock that night everything was quiet and in order. The serang stated that at 12 P.M. of the 31st January he went on watch, and that after relieving the second officer he found all was quiet and in order. He alleged that about 2 o'clock on the morning of the 1st February, whilst walking up and down on the after-part of the vessel, he perceived a smell as if some oily rag was being burned. He thereupon opened the skylight, looked down, and observed smoke issuing from the chinks of the hatchway which opened into the gun-room. He at once piped all hands and shouted that the light-ship was on fire. He then went and reported it to the first officer, who woke up and rushed on deck at once. The crew seemed to have turned out without delay. The door of the master's cabin then being pushed open, was found to be so full of smoke that no one could enter to ascertain the exact locality of the fire. After the smoke had burst open the hatchway which led to the gun-room, the serang went on deck and helped the crew to put out the fire by pouring buckets of water through the skylight into the master's cabin, but without effect; it gained on her very fast, so the crew abandoned the vessel. The second officer swore that at 2 A.M. on the morning in question he was roused by a noise of shouting, and on asking what was the matter, he was told that the light-ship was on fire. He then went to the master's cabin door and attempted to enter, but could not do so owing to it being full of smoke. He was ordered to get the pump alongside, and for that purpose he went at once on deck. Whilst he was attending to that order he was directed to try and find out the position of the fire. The second officer said that he went down, but as soon as he placed his feet over the hatch he felt the flames coming up. There was a seacunnie and two lascars on watch with the serang at the time. The disaster involved no loss of life, but the light-ship was completely destroyed. The first officer stated that he went to bed in the saloon at 9 P.M.,

and was up again at 11 o'clock, everything was then quiet, and there appeared to have been no suspicion of fire, when he went to sleep again. At 2 A.M. on the 1st February the serang woke him up, telling him that the vessel was on fire in the gun-room. The first officer came up at once, and observing smoke issuing from the master's cabin, he ordered all hands to man the force pumps and the fire buckets. He then went to the door of the master's cabin, and, on drawing the *purdah* aside, he observed that it was full of dense black smoke, which prevented all advance. He proceeded on deck for the purpose of getting the fire-engine to work alongside, but it was found that the delivery hose, which was below in a box in the 'tween decks, could not be got at owing to the dense smoke. The first officer directed the second officer to go below to try and find out the seat of the fire, and in the meantime the crew kept pouring buckets of water down the after skylight, and shortly after this the second officer reported that he attempted to get below, but in consequence of the flames in the 'tween decks, which were making their appearance at the main hatch, it proved useless. It seemed that he then shut down the saloon skylight with a view to smother the smoke, but as soon as the glasses got heated they broke. The first officer then endeavoured to get below, but in consequence of the cabin being full of smoke he could not do so. During the whole of that time water was being thrown down the skylight, but with little or no effect, as the fire gained on her steadily. At about 2-30 A.M. the flames were coming up through the after-skylight and the main hatch, and as there was no possibility of saving the *Mermaid,* and not knowing at what moment the magazine might explode, in order to save the lives on board, the first officer ordered the boats to be lowered, and immediately afterwards the vessel was entirely enveloped in flames fore and aft. After getting into the boats they pulled from the lightship to a distance of a quarter of a mile astern and anchored. At 15 minutes past 4 o'clock A.M., the steam-tug *Retriever* having sighted the burning vessel from the Eastern channel, came towards the derelict vessel and picked up her crew; at the request of the first officer of the light-ship the *Retriever* remained by the *Mermaid.* At 5 A.M. she was in bright flames fore and aft, when the magazine exploded and blew the after end of the light-ship entirely to pieces; after she sank, the *Retriever* proceeded up to town (Calcutta) with the officers and crew. At about 7 A.M., as the tug passed Saugor, the first officer telegraphed to the Port Commissioners, who sent a launch down to meet the steamer and bring the shipwrecked men to town for the purpose of holding a Departmental Committee of Inquiry at once. All the men on board the light-ship were utterly unable to account for the outbreak of the fire, or how it originated. The first officer positively stated that no one had been in the master's cabin on the night of the fire; it was left open with only a *purdah* drawn across. Original value of *Mermaid,* ₹1,25,000. The crew 29 men. No lives lost.

[A Departmental Committee of Inquiry was held in the office of the Port Commissioners, Calcutta, on the 2nd and 3rd February, by the Deputy Conservator, for the purpose of inquiring into the cause of the loss of the light-ship *Mermaid* by fire. The Committee recorded that from the evidence given in this case, it appeared that the serang and the deck watch observed smoke issuing from the gun-room hatch at 2 A.M. on the 1st February, and immediately called all hands and the first officer. The first officer, with the serang and a seacunnie, then went into the master's cabin and found it full of smoke, and at that moment the hatch seemed to have been burst up. The officers and men were then driven off the main deck entirely by the dense smoke and flame, and could do nothing but throw water down the hatch. The fire spread so quickly that within half an hour from the time it was discovered the boats had to be lowered and the crew abandoned the vessel. Immediately after the men left the *Mermaid* she was on

fire fore and aft; the magazine blew up at 5-15 A.M. and she sank at 5-30 A.M. The Committee observed that they had gone carefully through the evidence and closely cross-questioned the principal witnesses who were in a position to give evidence, but they were at a loss to understand how the fire could have originated. The gun-room was carefully stowed by the first officer, and apparently every caution was taken to see that no damp rice was placed 'tween decks. The officers and crew had no time to save any property whatever, and had consequently lost everything.]

The Vice-Chairman remarked that all the particulars that could be ascertained, and probably that will ever be known regarding the fire, were given in the proceedings of the Departmental Committee of Inquiry. There was no clue to the origin of this melancholy catastrophe, and it appeared from the evidence that on account of the dense smoke nothing could be done to save the *Mermaid* after the fire was discovered. He considered that this dense smoke must have been produced by the composition kept on board for the blue lights having ignited. The whole of the composition was in the gun-room, as also the rice taken on board on the 30th January as provision for the crew. It seemed that the fire must have originated when this rice was being stored, and was smouldering till the night of the 31st, when it reached the blue-light composition and caused the dense smoke which first attracted attention.

[A Marine Court of Inquiry was held in the office of the Port Trustees, Calcutta, by the Chief Presidency Magistrate on the 17th and 24th February and 2nd March, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the cause of the outbreak of fire on board the light-ship *Mermaid* whilst lying at the Intermediate station, Sandheads, on the early morning of the 1st February. The Court on the 17th duly assembled, and, after reading the papers received with the Resolution of Government appointing the Court, first made a preliminary investigation under section 7 of the above Act, taking the evidence of the master, officers, and others of the *Mermaid* whose evidence appeared to be material. The Court adjourned for the trial to the 24th February and 2nd March for further evidence, and on the latter date they considered their report. The Court recorded that on the 31st January the light-ship was lying at her station; at 12 o'clock that night the second officer was relieved from his watch by the serang, and at that time there seemed to have been no suspicion of fire. The Court observed that the serang in his evidence stated that about 2 A.M., the next morning, he noticed a smell of something burning, and that he looked down the skylight and saw smoke issuing from the chinks of the hatchway that led to the gun-room. He piped all hands, and every one seemed to have turned out without delay; but by this time the cabin (in which the hatchway was) appeared to have been so full of smoke that no one could enter to ascertain the exact seat of the fire, though two or three persons often tried to do so. 'An effort was made to get the hose to work, and the fire-engine was brought along the deck, but it was found that the delivery hose was in the 'tween decks, and by reason of the smoke could not be got at; so the fire-engine was useless, and the crew endeavoured to put out the fire by pouring buckets of water down the skylight. The fire increased very rapidly, and at about 2-30 A.M. the flames appeared through the skylight and also broke out fore and aft, so the crew were all ordered into the boats and abandoned the vessel, as there was no hope of saving her. At 5 A.M. the magazine of the *Mermaid* exploded and she went down, and the crew proceeded to Calcutta in the tug *Retriever,* which had picked them up. The Court recorded that the gun-room of the light-ship contained in the forward end of it a quantity of rice stowed in bags, and at the after end a copper magazine containing 106 one-pound gun-charges. The gun-room also contained a quantity of unmixed red-flare composition in two tin pack-

ages—one containing the charcoal being stowed on one side of the room, and the second tin containing the strontium being placed on the other side of the room. The Court had ascertained that those compounds unmixed were not liable to explode, and, further, that if they got damp from any cause, they would be less liable to spontaneous combustion than if they were dry. The Court found that the rice was stowed in the gun-room on the 30th January, and, at 4 P.M. on that day, the gun-room hatch was put on, and after that from the evidence before the Court no one appeared to have gone to the gun-room at all. The gun-room was divided from the after-hold by a grating of battens; on the forward side water-tanks were stowed up to that grating right across the hold into the wings, and on the top of the tanks were kept stores and a number of old boxes, two of which contained about 40 condemned rockets. The Court observed that if the fire had been caused by the rockets, the successive explosions must have attracted notice. It seemed that, according to the evidence, it was not possible for a man to have got from the main hold into the gun-room through the partition, and the rice was stowed in the gun-room right across the fore end from side to side and close up to the deck, rendering access impossible. After having taken the evidence of such of the crew as could throw any light on the subject, the Court were unable to come to a finding as to the origin of the fire; but they were of opinion that the fire originated in the forward end of the gun-room, as, had it broken out at the after end of the gun-room, the magazine would probably have exploded much sooner than it did. As the first signs of fire were observed at the gun-room hatch, the Court were of opinion that it did not break out in the after-hold, as in that case the barricade of rice would have prevented the smoke first appearing where it did. Moreover, from the dense smoke, it was probable that the red-flare composition was ignited at about the time the fire was first discovered. The Court farther considered that had the hose been in an accessible place, as it undoubtedly should have been, the fire might possibly have been put out and the vessel saved, and they considered that it was an act of negligence on the part of the officer in charge of the *Mermaid* not having his fire hose connected and ready for use every evening. The Court also considered that the magazine and other space used for the storage of combustibles below should be entirely separated from the store-rooms used for the stowage of stores and provisions in the hold, and that the hatch leading to the magazine should be kept locked and the key in charge of an officer. In conclusion, the Court added that both the officers and the crew had sustained considerable loss, as they were able to save nothing—all their clothes and other property having gone down with the vessel. They seemed to have behaved well, and the crew to have obeyed orders. From the records it appeared that the *Mermaid* had been at the Sandheads since the 25th January 1884, and that the crew had joined the light-ship only a few days previous to the catastrophe.]

11. The British iron screw steamer JUSTITIA [of Barrow, 1,986 tons register, official number 83983, schooner-rigged, age 3 years, classed 100 A1 at Lloyds, belonging to the Anchor Line of steamers, Indian service], from Calcutta to London with 2 passengers and 3,787 tons rice, tea, hides, tobacco, &c., valued at £70,000. It appeared that the steamer was bound from Calcutta to London, and intended calling at Colombo to coal. Early on the morning of the 5th February the *Justitia* steamed past Point de Galle harbour, making for Colombo, and at 20 minutes past 7 o'clock was off Pantura, the day being clear and bright. Whilst going full speed, *viz.*, 11 knots an hour, and when about 1¼ miles West by South from the Pantura rocks, the vessel, at 7·30 A.M., unfortunately struck, just as the men were taking their breakfast, on the Nikettia reef, about 13 miles to the southward of Colombo (West coast of Ceylon) and running parallel to the coast. She careened over to port within 8 minutes

after touching the ground, owing to the angle at which she approached the reef being very acute, and every one rushed immediately on deck, the master and first officer being then on the bridge; the crew, thinking that she was going down, made for the boats on the lee side. At that time the davits were in the water, the boats were lowered at once, as there was no time to save anything. The steamer possessed six boats, but only three were lowered; all the passengers and the crew, except the master, who refused to leave, got into the boats, which held every one. The master then told the two boats to go ashore, but being unable to land through the surf, canoes took the crew off the boats and so landed them; the master standing by the wreck with one boat. The heeling over of the steamer as soon as she struck let the water into her at once, and this quickly canted her right off the reef. The two boats after an hour put off from the shore again and rowed right round the wreck, when the crew observed a great hole stove in her bows as big as a house. After some trouble they persuaded the master to leave, which he did eventually, though not without reluctance. The crew and the two passengers after safely reaching shore proceeded up to Colombo by the afternoon train. At about 10-30 A.M. she heeled right over into deep water—6 fathoms—and all chances of getting her off were at an end. Shortly after the wreck occurred the Magistrate despatched a telegram to the Marine authorities at Colombo, advising them of the facts, and on the news reaching the vessel's Agents, a member of the firm was at once despatched to Pantura, and another member having arranged for the despatch of boats, divers, &c., also left the same afternoon for the scene of the disaster. The Colonial Government steam-tug *Industry*, having two large cargo-boats in tow, left Colombo harbour with a European diver and all the necessary apparatus on board the same day and arrived at Pantura at dusk. Several cargo-boats with coolies, in tow of the wharf and warehouse tug *Lanka* left early the following morning (the 6th) to endeavour to salve as much of the cargo as possible, which was of a very perishable nature. It was reported that the steamer was lying over on her port side, being under water fore and aft, and was likely to slip off into deep water at any moment; the rice, which formed the greater portion of the cargo, was of course hopelessly damaged, but efforts were made to salve as much of the less perishable cargo as possible. In the meantime the Police authorities sent men to keep watch over the wreck with the object of preventing any of the cargo being stolen. It seemed that shortly after the vessel grounded on the reef some fishing-boats, which were out at sea at the time, hovered about the steamer and picked up a portion of the live stock, sheep and goats, which were swimming about. The Marine authorities proceeded to the scene of the wreck late in the evening of the 6th in the steamer *Active*. They stated that the bottom of the *Justitia* was greatly damaged, and considered that she would have to be abandoned, as she had become a total wreck. The Agents reported that the hull of the steamer had settled still farther down, and fears were entertained that she would roll right off the reef into deep water, but she appeared, after an inspection of the wreck, to have been more firmly fixed than ever. The whole sea round the vessel was black with the tea, many cases having got out of the hold, burst and scattered their contents far and wide; others were floating about unbroken; the rice was also floating about in perfect sheets in a putrid state, and contaminated the air. Some work had been done in landing the cargo, but it was in very bad order. The European diver reported that he examined the bottom, and found a hole 20 feet square, and that every compartment was hopelessly damaged; the steamer had almost divided abaft the foremast. She was lying on her bilge, and from the funnel to the stern was exposed to the wind and water; the violent working of the seas at the fore part prevented diving, and the enormous quantity of putrid cargo hampered

all salvage operations. The master had had extreme ill-luck of late years, having lost the steam-ship *Galatia* of the same line in Tuticorin roadstead in June 1884, and subsequently the steamer *Justitia*, 13 miles to the southward of Colombo. He offered no defence, and was quite unable to account for his being so close in-shore. The catastrophe was solely due to the fact that the British Admiralty chart clearly showed that outside the Pantura rock there were 9 fathoms of water, and which rock had always been considered a land-mark for steam-ships proceeding to Colombo from the southward, and so long as a vessel was outside of it, she was considered perfectly safe. The rock ultimately discovered threw some doubt on the accuracy of the charts of that part of the coast, and the Colonial Government, considering that a fresh survey should be made, the last being executed about 40 years ago, have requested the Lords of the Admiralty to take the necessary steps for a thorough examination of the coast on the West side of the island. Original value of steamer *Justitia*, £65,000; cargo, £70,000. Some £18,000 worth of cargo was salved. The steamer was subsequently condemned and sold by public auction at Colombo on the 20th May, when the hull, fittings, stores, &c., together with the remaining portion of the cargo, realized R2,000. The crew 45 men, and 2 passengers. No lives lost.

[A Court of Inquiry was held in the Court of the District Judge, Colombo, by the District Judge on the 20th February, under the Ceylon Ordinance No. 4 of 1863, to inquire into the circumstances attending the stranding and subsequent loss of the above steamer on the Nikettia reef about 13 miles to the southward of Colombo. The Court, after having weighed the evidence most carefully, were of opinion that the loss of the steam-ship *Justitia* on a reef not marked on the Admiralty charts, and known to fishermen as the *Nikettia rock*, was due to the concurrence of *two* causes; namely, in the *first* place to the master having made an allowance for a S.W. current after leaving the Basses islands, and during the night, while in fact the steamer was not affected by any current, with the result that he was much nearer to the land in the morning than he intended to be; and in the next place to his having afterwards mistaken the Pantura rock for the Gallebuck rock, which was close to Colombo. The Court observed that had he not erred in mistaking the Pantura rock for the Gallebuck rock, this disaster, which had ended so fatally, should not have happened. The Court recorded that they did not attribute blame to the master for the allowance for current, but the error as to the rock was the more remarkable as, proceeding from the South, Mount Lavinia, which was about halfway between Pantura and Colombo, would have been much more conspicuous than the Gallebuck rock. The master had informed the Court that he had many times been to the port of Colombo, and knew the Gallebuck rock well, and having regard to its position being close to the fort at Colombo with the much more conspicuous objects, the light-house and flagstaff tower within 300 yards of it, the Court considered it unaccountable and extraordinary that he should have committed such an error. The Court recorded that the Nautical Assessors, on mature consideration, were of opinion that the master could not *reasonably* have mistaken the Pantura rock for the Gallebuck, as from the vessel's position, when he made this mistake, Mount Lavinia would have been equally visible at the same time, and the fact of his not seeing Mount Livania, ought to have made him hesitate in accepting the other rock for the Gallebuck rock. The Court observed that the master of the *Justitia* was deserving of censure for committing such a very grave error of judgment in having mistaken those rocks; but the Court did not think that the master was to blame, after he discovered his mistake, in having altered his course as he did, as the chart showed no other danger but deep soundings outside the Pantura rock, and he had no reason to suspect the existence of the Nikettia reef on which

the ill-fated steam-ship *Justitia* was wrecked. The Court recorded that the assessors concurred in the view taken by the Court, but as regards the fresh survey they thought it would be sufficient if a local officer were appointed to consult the fishermen between Bentotte and Colombo as to the rocks known to them off that part of the coast, and fix the position of all which might be pointed out not marked on the charts. The Court, therefore, considered that there were no grounds for suspending the master's certificate. The Court recorded that in view of the loss of the steamer *Justitia,* and the evidence of Mr. Warren and the great increase of the steamer traffic of late years, they felt it bound to call the attention of the Government to the imperfections of the existing charts and the necessity for a fresh survey of what was shown to be a very dangerous part of the coast on the Island of Ceylon. The Court, accordingly, after censuring the master, directed that his certificate be returned to him.]

12. The British Burman kattoo NAYIN BYAN [of Tavoy, 70 tons register, official number not reported, age 18 years], from Tavoy to Rangoon with a cargo of paddy and dunnee leaves. On the 8th February, whilst the kattoo was entering the Rangoon river by the Western entrance, Gulf of Martaban (Burma coast), owing to unskilful navigation on the part of the serang, she grounded on the Western sands at 5-30 P.M. On the following day at 9 A.M. she commenced to break up, and the crew being alarmed abandoned her as a wreck the same day. Loss, value of kattoo, ₹2,500; cargo, ₹3,500. The crew, 18 men, were saved in boats. (The disaster might have been avoided had the serang paid attention to the lead and also skilfully handled her.)

13. The British Indian pattimar FATE RAHIMANY [of Bombay, 63 tons register, official number 3212], from Cannanore to Bombay, with a cargo of copra, cocoanuts, ginger and cardamoms, valued at ₹14,655. On the 14th February the pattimar met with strong N.W. winds when off the port of Viziadurg (Bombay coast); the crew having lost all control over her, at 10 P.M. she dashed against the rocks and broke up. Loss, value of pattimar, ₹6,500; cargo worth ₹2,000 was lost, and ₹12,000 damaged; the remainder was saved. The crew, 16 men, and 13 passengers, were safely landed on shore in the canoe belonging to the pattimar.

14. The French iron screw steamer CHOLON [of Marseilles, 1,972 tons register, official number not reported, brig-rigged, classed at French Veritas I. 3/3* 1st division, belonging to the Compagnie Nationale de Navigation], from Rangoon to Port Said, with a cargo of 2,300 tons of rice, valued at ₹1,50,475. It appeared that the *Cholon* arrived at Rangoon on the evening of the 5th February from Keelung harbour, China, in ballast, and anchored in the stream for the night. On the following morning (the 6th) she was moored by an assistant harbour master in a good position above the Godwin's wharf to the southward of the *Mona,* as there was no berth vacant below. The barque *Mona* was the nearest vessel to the *Cholon* when the latter was anchored. The master stated that the steamer was dropping with her stern up the river, and when slightly on the port bow of the barque the assistant harbour master dropped the port anchor; the master was on the flying bridge and the assistant harbour master on the forecastle. After letting go the starboard anchor the steamer dropped astern, and on setting slightly to the Dalla side of the river the assistant harbour master let go the port anchor and moored with 60 fathoms on the flood chain and 45 fathoms to ebb. The master at first stated that he was satisfied with the berth, but afterwards complained that it was bad by reason of the eddy-tide being too strong. When the assistant harbour master left both chains were tight; the starboard anchor was to the southward of the port one. He sounded and found 6 fathoms of water abaft the *Cholon* to the westward and northward. The master also sounded round the vessel at half-flood and got 36′ astern; he therefore concluded that with a full cargo the steamer would draw 25′.

He afterwards took a cast of the lead every day up to the 14th, when he always found that he had ample water. On the 9th the vessel commenced loading her cargo of rice, which was continued up to the 16th, and during all that time she had received 18,600 bags of rice; but on the 15th no cargo was shipped on board. The master said that the draught on the 14th was 16′ forward and 20′ aft, but on the 16th, after taking in about 5,000 bags of rice, she drew 22′ aft and 18′ forward. The master positively stated that the steamer never moved on the 15th, but remained in the same position where the assistant harbour master placed her in on the 6th, because he always kept a clear hawse. The *Cholon* whilst swinging with the ebb tide her stern went to the Dalla side, and with the flood her stern invariably came round by Rangoon side. The master stated that on all previous occasions the vessel had swung fairly to the tide, and that the anchors held well all the time. On the 16th February, at about 1 P.M., the *Cholon* in swinging to the flood tide touched on the Ahlón sands, in the Rangoon river (Burma coast), the *Mona* was then on her port bow, and had nearly finished swinging to the tide. The first officer immediately sent for assistance and also to call the master, who was ashore at the time. He alleged that five minutes after the steamer grounded the port chain began to drag. At about 3-15 o'clock, when an assistant harbour master arrived, the master was not on board, but the vessel was in charge of the first officer. She was lying on the sands—about two ships' lengths from the position where she was moored in—athwart the tide taking in cargo; there being at that time six boats, some with cargo ready for shipment and others empty. He thereupon gave orders to send off the boats, and on going forward and looking at the anchors he found that the port chain was broad off the bows and the starboard one hanging slack, having parted. In the meanwhile the *Cholon* moved about a ship's length farther on the sands. Half an hour afterwards the master went on board and observed that there were two turns in the chain. He seemed to have done nothing but contented himself by giving orders to the crew to make ready a hawser. At 4 o'clock that afternoon the senior harbour master went with the steam-tug *Firefly* to the assistance of the *Cholon*. On proceeding aboard, he gave orders to pass hawsers to the *Firefly*, which vessel anchored 100 fathoms from the wreck. An attempt was then made to tow her off, but was unsuccessful. For the time nothing further could be done as the tide had fallen, and when the tide rose she let go another anchor and hove it taut, but the chain parted below the turns. The crew then commenced unloading the cargo, and up to 4 o'clock on the evening of the 17th about 4,800 bags were discharged. As the tide rose the steamer floated a little, but again grounded and lay broadside on to the tide. At the third position the vessel's starboard chain broke, and the port anchor being quite insufficient to hold her she unhappily drifted up with the 8 knots tide. At 6 P.M. the assistant harbour master who moored the *Cholon* went on board and found her ashore, astern of the *Mona*, which vessel was riding to the tide at about a dozen cables' lengths distance; one of the *Cholon's* chains were tight and the other slack, but they were clear as far as he saw them. At 7 o'clock, the water having fallen, it was discovered that the chains were foul, and that the starboard chain had parted. He told the first officer to clear the chain that night, who replied that as the crew were fatigued, he would wait till to-morrow. On the 18th the assistant harbour master cleared the port anchor and hove in nearly 30 fathoms of the starboard chain. He said that there should be 7 or 8 fathoms of chain lost with the anchor if there were no more out then he had paid out on the 6th. On the afternoon of the 17th the steamers *Firefly, Salween,* and two other tugs came alongside, and the *Cholon's* engines being kept going, efforts were made to get her off, but to no purpose; the tugs only moved her in her bed, but the steamer got no steerage way.

During the night the boilers began to lift, and the vessel as she lightened got farther on to the sands. The crew continued to discharge cargo, working day and night up to the 22nd. On the 18th February the Marine Surveyor, together with a chief engineer and a master of a steam-ship, proceeded on board the *Cholon* for the purpose of surveying her. After a careful examination they found the vessel lying aground fore and aft and across the tide which was then running flood. The port funnel stays on the bridge deck broken, and also the funnel twisted to starboard; in the engine-room the bilge pumps pipes were broken and the port boiler was lifted 8″, and also the bunker bulkheads were twisted. They accordingly recommended that the utmost despatch be used in discharging the cargo and in lightening the vessel in every way. At low tide the same day the Surveyors visited the steamer, and found that she was lying on her port bilge, and all along her starboard side was one complete sand-bank 3′ high. The after hold had 7′ of water, the main and fore holds 3′, and 10′ in the engine-room; the crew were busily employed in getting out the cargo from the main and fore holds. The funnel was lifted 3′ and the top of the boiler bulkhead lifted 3′ and all broken. They advised that the steamer's bottom be examined by divers. On the 21st the steamer was again surveyed at low tide, when it was reported that the vessel was lying heavily on her port bilge, and each tide appeared to embed her more in the sands, and the crew engaged in getting out the cargo. The boilers had lifted from previous survey 2′ and there was a free flow of the tide in and out of the vessel. On the 22nd it was perceived that she had broken her back, and the water rapidly rushed in—so much so, that within 48 hours she was full, when the crew abandoned her as a total wreck. On that day (the 22nd) the Surveyors visited the vessel, and found that at every tide the steamer heeled more heavily on her port bilge, embedding herself deeper in the sand, which made it impossible for divers to examine her bottom. The tide was flowing freely in and out, and as there were some 3,000 bags of the cargo still in the vessel under water, it was equally impossible for the divers to examine from the inside. The Surveyors were of opinion that the *Cholon* was virtually a total wreck, and quite concurred with the master and crew in the abandonment. On the morning of the 24th the Deputy Port Officer (also the River Surveyor) proceeded on board the steamer for the purpose of finally surveying her. He reported that the vessel was full of water, and, in his opinion, was a total wreck. The Lloyds' Surveyors finally examined the *Cholon* on the 25th with a view to determining the best steps to be taken with reference to her hull. They reported that in the interests of all concerned she should be sold as soon as possible. Original value of *Cholon*, £70,000; of the cargo R31,176 worth was lost and the remainder saved. The wreck was sold by public auction at Rangoon on the 27th February for the sum of R8,000; and the cargo, which was damaged, realized R4,580. Another sale was held on 16th March of the anchors, chains, deck and cabin fittings, and other articles salved from the wreck, which fetched R10,040. The crew 60 men. No lives lost.

[A Special Court of Inquiry was held in the Court of the District Magistrate, Rangoon, on the 6th March, by the Deputy Commissioner, under section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances attending the stranding and subsequent loss of the French steam-ship *Cholon* on the Ahlón sands in the Rangoon harbour. The Court on the 6th duly assembled, and, after reading the papers received with the Resolution of the Chief Commissioner appointing the Court, first made a preliminary investigation under section 7 of the above Act, taking the evidence available in this case, as all the *Cholon's* witnesses had left for Europe; they then directed the parties to withdraw in order that they might consider their report. The Court

recorded that as all the officers and crew of the steamer, with the exception of the master, had already left Rangoon and proceeded to Marseilles, the Court were unable to examine them; but that the Vice-Consul for France had been good enough to forward copies of the official report made by the officers of that vessel, together with a letter of remarks by the master on the evidence recorded. The Court, after having taken the evidence available in this case, found that the master was not on board at the time of the occurrence, and his evidence, therefore, was only what he had been informed by others. The Court recorded that the assistant harbour master stated that, on the morning of the 6th February, he moored the steamer *Cholon* above the Godwin's wharf to the southward of the barque *Mona*. After dropping the port anchor in 26′ of water, the vessel went towards the Dalla side of the river, when he at once paid out 100 fathoms of chain and hove on it until the starboard one was let go. When he left, the steamer was tightly moored with 60 fathoms to the flood and 45 fathoms of chain to the ebb, the starboard anchor being to the southward of the port one. He said that he sounded the position after berthing the vessel and found 6 fathoms of water abaft the steamer to the westward and northward. He swore that he had every year anchored vessels in the same ground, and not heard of any accident having occurred save in the present case. He had, so recently as the 1st February, moored the steam-ship *Mount Tabor* in the same position as the *Cholon*, and that without any mishap. He merely placed the steamer in the mooring ordered by the senior harbour master, as he had nothing whatever to do with the allotting of vessels' berths, but considered that the mooring was the best vacant one then available. If any complaint was made to him regarding a vessel's berth, he would simply refer the master to the Marine authorities. He did not remember whether the master of the ship *Daphne* complained concerning his vessel's berth being called the "Devil's hole." The senior harbour master stated that he had the allotting of the berths in the Rangoon river, and in the ordinary course of business he ordered the *Cholon* to be moored above the Godwin's wharf in consequence of there being no vacant berth at the time; also as there was insufficient water for the vessel to load in below the wharf. There were good moorings in the Pegu river with plenty of room, and the merchants objected to vessels being berthed in it; but he considered the moorings above Godwin's wharf as good as those below it. On the 14th February he sounded round the *Cholon* with a radius of two ships' lengths, and the least water obtained was 26′, which gave 32′ to 34′ on the first quarter of the flood, spring tides. He positively stated that he examined the locality before he ordered the vessel to be moored there; that the flood was no stronger in that vicinity than at any other part of the river; and that the tide rose 4′ or 5′ before the vessels in the harbour began to swing. He alleged that the master of the ship *Daphne* objected to his vessel being moored in the same locality as the *Cholon*, not on account of the bottom, but because of the conservancy wharf. The senior harbour master accounted for the *Cholon* having struck the ground to her shoaling, caused by her stirring the sand up, thus dragging her anchors or parting one of her chains. He had never previously known a vessel to have dragged her anchor in that locality. After the steamer grounded he examined the spot, and found that it had considerably altered, the water having shoaled in places as much as 2 fathoms. The River Surveyor stated that the barque *Mona* was 205′ long and the *Cholon* 350′. He considered that there might have been some rock or laterite, or something hard at the spot, to have caused the *Cholon* to break up so rapidly as she had done. The master of the barque *Mona* stated that on the 6th February the *Cholon* dropped anchor abreast of his vessel on the off side just as the *Mona* had swung to the flood. On the 14th the master of the barque discovered that the steamer was very near to the *Mona* in swinging flood, when there was not more than 2′ between her and the *Cholon*. The next day the master of the

Mona observed that the *Cholon* was slack in her moorings, and this he in part attributed to her loading. One assistant harbour master stated that both steamers and sailing ships were ordinarily berthed where the *Cholon* was moored; that steam-ships of the same size as the wrecked vessel had been anchored there before, and that no vessel before had ever dragged its anchor. He considered the *Cholon's* berth a most safe one, and that had there been a ridge where the catastrophe happened, he would have still considered it to be a safe mooring. The senior harbour master stated that on the afternoon of the 6th February he received information that the *Cholon* had dragged her anchors, so he with all haste deputed an assistant to re-moor her, and two hours afterwards he proceeded with the steamer *Firefly*. On arriving at the scene of the disaster he saw the master and the assistant harbour master on board. It was then flood tide, and the *Cholon* was lying on the sands athwart the tide about three ships' lengths from her original position; one chain was tight and the other had parted, but was not sure which one, as both were leading the same way. He quickly got an anchor out over the stern on the port quarter and put the ropes on the *Firefly* and made the tug anchor 100 fathoms from the steamer. Efforts were then made to float her, but without success. On the 22nd the vessel having broken her back, she was abandoned as a wreck. After a careful consideration of the facts and circumstances of this case the Court found that the master was not on board at the time of the disaster, and his evidence therefore was only what he had been informed by others. The Court having studied the chart and the position of the steamer, were of opinion that it was impossible for the *Cholon* to have grounded without having dragged her anchors. They considered that the steamer dragged her anchors without being observed by her crew before she struck the ground, and that having dragged her anchors she touched in swinging; that then the flood tide caught her on the bow and caused one of the chains to part, and from thence she drove higher and higher on the Ahlón sands, where she finally became a total wreck. The Court observed that their conclusion was supported by the evidence of the master of the barque *Mona,* which vessel lay close by the *Cholon,* and who gave evidence to the effect that on the day before the disaster he noticed that the *Cholon's* moorings were slack.]

15. A Persian boat or bagarah [of Linjah, 16 tons, age not known] was employed in fishing. It appeared that on the 10th February the boat left Bandar Malim with nets and 6 men and proceeded seaward. On the night of the 17th February she was off Salak on the Island of Kishm, lying fast to their net, which was down. The tindal stated that the crew were all asleep when the steamer was approaching, and only two minutes before the accident they awoke. At 11-20 P.M., the tindal alleged that he sighted the *Arabia* proceeding towards the bagarah and quickly roused the crew up, telling them that a steamer was going over the boat. The crew of the boat had no light burning, so they tried to light some palm leaves in order to make a blaze or flare up, but as it was raining at the time they failed in their efforts. Immediately the steamer came straight towards her, but her mast being unshipped she could not get out of the steamer's way, when the *Arabia* ran into the bagarah in latitude 26° 32′ N., longitude 55° 47′ E. (Persian Gulf), and cut her in two. The boat drifted past the steamer on the starboard side, and at once filled with water and sank. The tindal of the boat stated that he might have rowed clear of the *Arabia* had not the net been down, but he was afraid of losing the net, it being worth ₹1,000, and so the crew did not cut it adrift. The tindal swore that the crew just two minutes before the accident happened raised an outcry, but the steamer evidently did not hear it owing to the wind being high and the sea rough. The steamer then lowered her boat, and two men, together with the tindal, were picked up and taken on board the steamer, but the remaining 3 men were drowned. The boat was lying very low in the water without mast or sail up, and the crew, it was asserted by the men on

board the *Arabia,* gave no sign of their presence until just two minutes before the casualty happened, and then it was too late for the steamer to avoid a collision. It was raining at the time, and it was a very dark night, weather being cloudy; the wind was E.N.E., and there was a short breaking sea on. The helm of the *Arabia* was put hard-a-starboard and the engines stopped and put full speed astern, but not in sufficient time to prevent the disaster. The steamer left 3 men at Maskat in charge of the British India Steam Navigation Company's Agents, with instructions to send the shipwrecked men back to Linjah. Ultimately the survivors were taken on board the next in-coming steamer from Bombay and safely landed at Linjah. Original value of boat ₹2,000; the value of the net was ₹1,000. The crew 6 men; 3 lives lost. (The disaster might have been avoided had the crew of the bagarah exhibited a light in time.)

(For an account of the Arabia, see Casualties, No. 44.)

MARCH.

16. The Italian wooden barque TRIPUDIO [of Genoa, 1,081 tons register, official number 3287, age 17 months, classed at Italian Veritas], from Newcastle-on-Tyne to Akyab, with 1,640 tons of coals, value £2,000. It appeared that the barque left Newcastle-on-Tyne and all went well until the 8th March. At noon of that day the master stated that he reckoned his position by observation to be in latitude 19° 53′ N., longitude 91° 51′ E. (Bay of Bengal), and from that position up to 4 P.M. the course steered was N. 70° E., and the distance run by log 32 miles; from 4 P.M. to 8 P.M. the course steered was N. 86° 30′ E., and the distance run was 14 miles; and from 8 P.M. until 9 P.M. her course being East, and the distance run 2 miles. The first officer stated that at 8 P.M. soundings were taken, and obtained no bottom at 15 fathoms; the hand lead only was used, and no other sounding seemed to have been taken until 9 o'clock that night just before the vessel struck the ground, almost at the same moment as the light on Savage island was sighted, bearing East. The master positively stated that at 9 o'clock on the night in question the two men who were on the look-out on the foretopgallant yard reported a light right ahead, but could not state whether it was a fixed or a revolving light, and on taking soundings immediately the cast gave 8 fathoms. It appeared that the master was not aware of the destruction of the light on Oyster reef, and consequently he stood on too long without taking soundings; the wind was from N.N.W. and light; the sea was smooth, and it was a fine clear night. The master stated that immediately on seeing the light he gave the order to port the helm and to steer more to the southward, but the barque had hardly gone any distance when she stranded on the S.W. side of Oyster reef (Burma coast). The master then ordered all the after sails to be taken in and kept the head sails set, but finding that the vessel did not move, he took in the head sails; the tide ebbing at the time rendered the efforts made to get the *Tripudio* off unavailing. The master subsequently lowered a boat and directed the first officer to take soundings round the vessel, when 3 fathoms were obtained forward and 3 to 5 fathoms on each side at the stern, the greatest depth being under the port quarter; and a short distance from the stern 6 to 7 fathoms. After taking soundings the master put out an anchor astern and tried to heave the barque off, but to no effect, and she began to bump. At 9-45 P.M. on observing that there were 3′ of water in the vessel's hold, the master made signals of distress by burning barrels of pitch. About 2 A.M. on the 9th a boat, with 4 seamen belonging to the British barque *Balaklava,* came alongside and worked with the crew of the stranded vessel until about noon for the purpose of lightening her by jettisoning cargo, and at midnight of that day the *Tripudio* appeared to be afloat, and efforts were

made to get her off by the stern, but without success. The master then endeavoured to float her by laying out an anchor forward, but he only succeeded in turning the vessel round. At 6 o'clock the next morning (the 10th) the master stated that from the wreck the piles of the old light-house was sighted, bearing S. 31° 15′ E. about 300 yards off. The master tried every possible means to get the barque off the reef but failed; he then got the crew together and asked for any suggestion to float her, as she had 7′ of water in the hold, but finding that nothing could be done, the master left the vessel at about 4 P.M. on the 10th, and proceeded to Akyab in a boat to procure assistance. The remaining men who stayed aboard worked incessantly in lowering the sails and pumping the vessel, &c. The first officer swore that the deep sea lead was never used as the weather was fine and clear, but that a middle-sized hand lead, which weighed about 10lb, was used on the 8th and previously. The master arrived in port at 10 P.M. that night and slept in his boat, when early the next morning he met the Port Officer, who was going out in the steam lighter *Dolphin* with assistance to the wrecked vessel. The master stated that he never made inquiries about any alterations in the lights leading to the port of Akyab before he left Newcastle; but he had the latest books and charts dated 1884. He could not read English, and he therefore ought to have been told about the destruction of the Oyster reef light by the Port authorities at Newcastle; and stated that all the masters of vessels he had spoken to did not know of the light being suspended. On the 11th the Surveyors, after having carefully examined the hull as she lay on the reef, reported that they were of opinion that neither the barque nor the cargo could be salved; the vessel was full of water, and was gradually breaking up. On the 12th the *Dolphin* returned to port, having safely brought in all the crew, together with sails, gear, and boats to the value of R4,000. Shortly afterwards the *Tripudio* broke up and disappeared. Original value of the barque, £10,000; cargo, £2,000. Crew 17 men. No lives lost.

[A Special Court of Inquiry was held in the Court of the Assistant Commissioner, Akyab, by the District Magistrate on the 16th and 17th March, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances connected with the stranding and subsequent loss of the above vessel. The Court on the 16th duly assembled, and, after reading the papers received with the Resolution of the Chief Commissioner appointing the Court, made a preliminary investigation under section 7 of the above Act taking the evidence of the master, and of others whose evidence appeared to be material, when an adjournment of the inquiry took place, in order that they might consider their report. The Court recorded that they had, in order to obtain a person to interpret correctly, appointed the Reverend Father Amendolini for that purpose, and after having duly administered the oath, the Court proceeded to make the investigation. On the order of the Court the master produced a copy of the "List of Light-houses and Fog Signals of the World" corrected up to 1st January 1884, and one chart of the Bay of Bengal of 1881; and after they were inspected, the Court considered that no further evidence was necessary, and the inquiry was therefore closed. The Court observed that from the sworn testimony of the master and those of the crew who had been examined the facts were as follows: The Italian barque *Tripudio* was, when wrecked, on a voyage from Newcastle-on-Tyne (England) to Akyab with a complete cargo of coals. All went well up to the 8th March. At about noon on that day the master took observations, and found that his vessel was in latitude 19° 53′ N., longitude 91° 51′ E. He described the course of the barque and the distance she travelled between that hour and 9 P.M. of the same day when she struck the ground. No soundings were taken between noon and 8 P.M.; at the latter hour, the hand lead was heaved and no bottom was reported at 15 fathoms. The Court recorded that

this must have been incorrect and the master must have known it, for, in the position his barque was at that hour which his own reckoning put her, he was a long way within the radius of the Oyster reef light-house, which he thought existed; and besides he must have known by his chart that he should have been in shoal water, *i.e.*, in 10 fathoms. He did not appear to have felt anxious enough about his position, because, finding no bottom reported at 15 fathoms when he should have been in 10 fathoms, he ought to have verified the soundings taken by the vessel's cook by taking them himself or personally superintending fresh soundings. In failing to do this, he showed a great want of care which resulted in the loss of the barque. The Court observed that it was the master's duty to have taken soundings more carefully and also oftener, knowing the position he was in.]

17. The Maldivian sloop BUNDIHAWOODY [of Máli Atoll, 42 tons register, no official number, age 13 years], from Colombo to King's Island (South Máli Atoll) with a general cargo. The tindal stated that the sloop after leaving Colombo was blown off the coast of Ceylon during a heavy gale and thus missed the intended port, and when trying to beat back again all efforts proved unsuccessful. At 8 A.M. on the 11th March, whilst in latitude 7° 13′ N., longitude 69° 21′ E. (Indian Ocean), she sprung a leak and sank. The crew were fortunately taken off and landed at Rangoon by the ship *Bay of Bengal* before the sloop was abandoned. Loss, sloop and cargo; value not reported. The crew, 11 men, and 8 passengers, were saved.

18. The British Indian padow RAMPRASAD [of Bulsár, 14 tons register, official number 1891], from Revdanda to Bombay with a cargo of firewood. On the 15th March the padow was sailing along the coast, when at 5 P.M. she came into contact with a fishing-stake, which was broken off short below the surface of the water, about half a mile to the South of Kundari Island fort, Bombay harbour. She had a large hole stove in her stern, and having rapidly filled with water, she sank. Loss, value of padow, ₹2,250; cargo, ₹116. The crew, 8 men, were saved in the padow's boat. (The disaster was caused by the carelessness of the tindal.)

19. The British wooden barque ACORN [of Sunderland, 374 tons register, official number 58133, age 18 years, classed at Lloyds A1 for 11 years, and which was subsequently, in 1879, continued on that letter for 8 years; she had therefore only 2 years more of her term to run on that class], from Mauritius to Bombay with a full cargo of sugar. The barque was surveyed at London and reported to have been, on the 29th May 1884, in a good and efficient state, and classed as A1 for 8 years from May 1879. She was again carefully examined at Port Louis, Mauritius, on the 30th December 1884, by the Marine Surveyor, and was found to have been in good repair, well equipped, and in a fit condition for the conveyance of dry and perishable goods. Previous to the barque sailing from Port Louis on the afternoon of the 21st January, she had been laid up in the harbour for six weeks, during which time she was exposed to the sun; consequently she might have warped somewhat. Two or three days after leaving Port Louis the vessel encountered a stiff breeze with heavy head seas and began pitching excessively, when she leaked but only a little. The pumps were regularly attended to during the voyage, and a week after the barque left Mauritius only a bucket or two of water could be got out of her. Nothing of importance happened up to the 9th of March, when the weather became boisterous with heavy squalls and rain from the eastward, accompanied with high cross sea from the N.N.W., causing the barque to roll and strain excessively, the decks also being flooded with sea coming on board; the pumps were carefully attended to throughout and sucked dry every two hours, but she made a little more water than usual. The vessel's position on the 12th was 6° N. latitude and 67° E. longitude, when the weather became more settled. All went well until the 18th, when

the pumps were sucked dry as usual at 4 A.M. On the pumps being again tried two hours afterwards an unusual quantity of water was reported in the vessel. At this time the master went down the forepeak, and the first officer with the carpenter proceeded to the lazarette in order to try and discover the locality of the leak, but ineffectually. At 7 A.M. the wells were sounded and the vessel was found to be making 26″ of water; all hands were kept continually at the pumps till 8 P.M., when the water had been considerably reduced in the hold, but the men were exhausted and unable to continue at the pumps. At 8 o'clock that night one half of the crew withdrew for a little rest, whilst the remainder endeavoured to keep the barque free, working in watches. At 8 A.M. on the 19th the crew represented to the master that in spite of continuous pumping there was 3′ of water in the hold, and the leak had increased so rapidly that it was not safe to remain on board. In this the master coincided, and seeing that the only chance of saving life was to take to the boats, he immediately shouted out "All hands man the boats." Shortly afterwards the longboat was got out, and the steward and some of the crew got out some provisions and put them into the boat. At daylight a steamer was sighted, but she was too far off to observe signals. On that day the master stated that the weather was fine with a clear horizon and the sea smooth. Sights were taken at noon, and the position of the vessel by observation was latitude 8° 26′ N., longitude 68° 48′ E.; about 240 miles to the westward of Minikoi Island (Arabian Sea). As the water was gaining upon her rapidly, signals of distress were hoisted, and the steam-ship *Straits of Gibraltar*, bound towards Aden from the eastward, came to the assistance of the *Acorn*. At 1-15 P.M. a boat was lowered and sent from the steamer to the barque; the master and 4 men then boarded the disabled vessel. The wells were sounded and 8′ of water was then found in the hold; the cargo had also by that time settled down from the main decks to nearly 'tween deck beams, and was only a few feet from being wholly under water, as the sugar dissolved so quickly. The master of the *Acorn* then asked the master of the steamer if he could assist in towing the barque into the nearest port for safety, whereupon the master replied that it was hopeless to do anything further to save the vessel in consequence of there being too much water in the hold. The master seeing that there was no hope of saving his vessel or the cargo, after consultation with the master and officers of the steam-ship *Straits of Gibraltar*, decided to abandon her. The master then fearing that the position of the barque was dangerous to vessels bound from Ceylon towards Aden, and as the *Acorn* might possibly float throughout the night to the serious danger of vessels, it was determined after consultation to cut a hole in her side in order to hasten her sinking to the bottom before dark. With this object the first officer, the boatswain, and the carpenter, accompanied by the carpenter of the steamer, went alongside the direlict vessel with axes to knock holes for the purpose of scuttling her out of the fairway of passing vessels. A hole, measuring nearly 3′ in length, was then cut in her side just at the water's edge. At 5 o'clock the same evening the master and the crew left her in a sinking condition, and were received on board the steam-ship *Straits of Gibraltar*. They were conveyed to Aden, whence they were ultimately landed. The master stated that there were two old-fashioned pumps on board in good order and condition, but with the scanty means at his disposal—the crew being quite worn out from pumping—he was positive that the *Acorn* could not be taken into any port. The crew appeared to have been excessively fatigued not only from the result of their previous prolonged exertions, but also from anxiety with respect to the scuttling of the vessel. The vessel's log-book and other papers, together with some of the effects belonging to the crew, had been left in the barque in the hurry and excitement of the moment. None of the witnesses could account for the *Acorn* having sprung so serious a leak, but they alleged that the

vessel was swarming with rats, and possibly those destructive animals might have eaten a hole through her side which was not visible, nor was the locality discovered by any one of the crew. Original value of the *Acorn,* £7,480; cargo, ₹86,400. The crew 10 men. No lives lost.

[A Marine Court of Inquiry was held in the Court of the Political Resident at Steamer Point, Aden, by the Political Resident and Sessions Judge, on the 2nd and 4th April, under the provisions of section 8 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances attending the above vessel having sprung a leak and its subsequent abandonment. The Court recorded that on the 2nd April, after having duly assembled, the report giving notice of the abandonment of the barque *Acorn* in a sinking condition, as also the telegram from the Governor of Bombay authorizing an investigation to be held, were laid before the Court. After reading the papers and correspondence, the Court called and examined the witnesses on oath, and on conclusion of their evidence an adjournment of the trial took place until the 4th April in order to consider their finding. On the Court re-assembling on that day, the master of the barque being present, the report of the Court was read, after which the official log-book, the certificate of registry, and the Agreement with the crew, were handed over to the Shipping Master at Aden. The two certificates of survey were returned to the master of the barque. The Court observed that the *Acorn* was surveyed at London and reported to be, on the 29th May 1884, in a good and efficient state, and classed as A1 for 8 years from May 1879. She was again examined at Mauritius, Port Louis, on the 30th December of the same year, by the Marine Surveyor, and was found to be in good repair, well equipped, and in fit condition for the conveyance of dry and perishable goods. It appeared from the evidence given in the case that the *Acorn* sailed from Port Louis on the afternoon of the 21st January, bound for Bombay, with a full cargo of sugar. The pumps were regularly attended to during that voyage for a week after the vessel leaving port, and only a bucket or two of water could be got out of her. Nothing extraordinary occurred till the 9th March, when the barque experienced bad weather, high cross seas and rain, causing the vessel to roll and strain very much, and she leaked more than usua at that time. On the 12th the weather became fine, and the vessel stopped leaking; the barque's position on that day was latitude 6°. N., longitude 67′. E., being to the westward of the Maldivhs. At 4 A.M. on the 18th the pumps were sucked dry as usual, but at 6 A.M., when the pumps were again tried, an unusual quantity of water was discovered in the vessel; the wells were sounded an hour afterwards, and 2′ 2″ of water were found. All hands were at once called to the pumps, who pumped continuously till 8 P.M. the same night, when the water had been considerably reduced in the hold; but the men were quite exhausted and unable to continue pumping. One half of the crew then retired to rest, and the remainder endeavoured to keep the barque free, working in watches. At 8 o'clock the following morning (the 19th) the leak had gained considerably, there being 3′ of water in the hold; boats were got ready and provisioned. The barque's position at noon on that day was latitude 8° 26′ N., longitude 68° 48′ E., nearly 240 miles to the westward of Minikoi. A steamer was sighted which observed the signals of distress from the *Acorn,* and bore up to her. She was found to be the steamship *Straits of Gibraltar,* from Akyab bound to Port Said. The master of the steamer went on board the barque, when a consultation was held; the wells were sounded and 8′ of water found in the vessel; the cargo had considerably dissolved and settled down from the main deck nearly to the 'tween deck beams, and was within a few feet of being wholly under water. It was found impossible to save the barque or cargo, and therefore it was determined to abandon the vessel; but as the position of the *Acorn* was danger-

ous to passing ships and steamers, it was deemed advisable to scuttle her. A plank, 3′ long, was cut from the vessel's side close to the water's edge by the carpenters of the *Acorn* and *Straits of Gibraltar,* and the master and crew of the former vessel then went on board the steamer and arrived at Aden on the 26th March. The Court recorded that the assessor was of opinion that no blame could be attached to any one for the loss of the vessel; that reasonable exertions had been made to keep the barque afloat by having the pumps going steadily for at least 14 hours without decreasing the leak; that this was sufficient to exhaust the strength of the crew and cause them to abandon all hopes of being able to navigate the vessel to any port close at hand; that the master was justified, under the circumstances, in scuttling the *Acorn;* and that he did so after consulting the master of the steam-ship *Straits of Gibraltar*, who brought the master and crew of the ill-fated vessel on to Aden. The assessor observed that there was nothing in the evidence to show what had caused the leak. Also there was no unusual bad weather experienced after leaving Mauritius but what any ordinary vessel could have encountered with safety. The assessor was of opinion that there was nothing improbable in the statements made by some of the witnesses, that as the vessel was swarming with rats, the little animals must have caused the leak. The Court recorded that the position of the leak was searched for by the master and others, but to no avail. There were two old-fashioned pumps in good working order on board which were worked by the crew from the time the leak was discovered on the 18th until the vessel was abandoned. The crew appeared to have conducted themselves properly, and exerted themselves to the utmost to keep the pumps going until they were completely exhausted. The Court observed that there was nothing in the evidence to show what caused the leak, beyond the statement made by some of the witnesses that the barque was swarming with rats, and that those animals must have in some measure caused the leak. The Court came to the conclusion that there was no grounds for blaming the conduct of the master or any one on board the ill-fated barque *Acorn.* The master seemed to have done everything he could, with the means he had at his disposal, to save the barque and cargo; he was justified in scuttling the vessel, as her position would have imperilled other passing ships and steamers had she remained afloat. The Court therefore had much pleasure in returning the master and the first officer their certificates.]

20. The Native gulbut CHANDANI [of Habsán, 16 tons register, official number 24, age not known], from Revdanda to Anjanvel with a cargo of casks and gunnies. On the 20th March the steamer *Godavari* was on her way from Goa to Bombay, and the gulbut was sailing to the southward, with all hands on board asleep and no lights burning. At 1 A.M., when off the Harnai fort (Bombay coast), the steamer ran into the gulbut and considerably damaged her bow. The *Chandani* immediately filled with water and foundered. Loss, value of *Chandani,* R2,000; cargo all lost, value R340. The crew, 6 men were picked up and afterwards landed at Bombay. (The collision was attributed to the want of a proper watch, and to a good light not being kept on board the gulbut. No official report of the casualty to the steamer *Godavari* had reached this Department.)

21. The British Indian battalla LUCKMIPUSSA [of Calicut, 29 tons register, official number 742], from Sirgándo to Mundra with a cargo of paddy and rice. At noon, on the 22nd March, the battalla, when one mile off Jaghi bandar (Sind coast), owing to a sudden gust of wind, capsized and afterwards broke up. Loss, value of battalla, R1,300; cargo, R1,265. The crew were all saved in the small canoe belonging to the battalla.

22. The British Indian padow DARIA DOULAT [of Anjanvel, 18 tons register, official number 5465, age not known], from Anjanvel to Bombay with a cargo of groundnut oil and groundnuts. On the 23rd March the padow was

proceeding up the Bombay coast, when at 9 P.M. she ran upon a broken fishing-stake about half a mile to the southward of the Kundari Island fort, and having rapidly filled with water, foundered. Loss, value of padow, ₹2,000; cargo worth ₹2,400 was lost, and the remainder, valued at ₹5,400, was saved. The crew, 6 men, and 1 passenger were saved by a pattimar which was then passing at the time. (The wreck was attributed to the negligence of the tindal.)

23. The Portuguese Native padow JAIRAM PRASAD [of Damán, 14 tons register, official number 17, age unknown], from Kelva Máhim to Bombay with a cargo of chunam. It appeared that the padow was an old craft, and although she had been repaired, on leaving port several planks started during stormy weather on the 25th of March. The crew tried to keep the leak under, but unsuccessfully, as she rapidly filled, and the cargo, which was loose chunam, soon dissolved; the tindal tried to take her to the shore, but she sank at midnight about two miles off the village of Yedwan (Bombay coast). Loss, value of padow, ₹950; cargo, ₹900. The crew, 8 men, were picked up by a passing muchwa and landed at Trombay.

24. The British iron screw steamer ARAFAT [of Newcastle-on-Tyne, 1,900 tons register, official number not reported, age 3 months, schooner-rigged, classed A1 100 at Lloyd's], from North Shields to Bombay with a cargo of 2,600 tons of coals and machinery. It appeared that the steamer sailed from the Tyne on the 1st March and called at Port Said, which port she left on the 18th and Suez on the 20th, with one passenger on board, and all went well up to the 28th of March. At 5 o'clock on the morning of that day the steamer, whilst proceeding down the Red Sea, struck on a shoal, nearly 42 miles to the West of Jebel Teir Island, in latitude 15° 33′ 30″ N., longitude 41° 04′ 0″ E. What course the *Arafat* actually made between Suez and the place where she went aground was not proved in evidence, which was vague and unsatisfactory. A theory was set up that the steamer had deviated from her course by a current sufficiently to account for her loss, but that theory was not proved in evidence. The vessel appeared to have steered a course 10° more to the South than was intended, but how the mistake arose the evidence did not show, and it was clear that no means were adopted by the master, or by the first officer during the master's illness, to ascertain the true position of the steamer—which would have resulted in the discovery of the mistake. It was doubtless through this mistake that she arrived at a point 42 miles instead of about 5 miles (as was intended) West from Jebel Teir. On the vessel going aground, all the officers and the crew did their utmost to get her off, except that they did not work throughout the night of the 25th March. The efforts to get the steamer off would probably have been successful if she had not been boarded by armed natives; the officers and crew were practically unarmed, and did resist the natives, but unsuccessfully. No soundings seemed to have been taken during the voyage; and the charts were, during the temporary illness of the master, removed from the chart-room to the saloon. The master's illness commenced on the 22nd, but was not severe enough to induce him to give up the sole control of the vessel to the first officer; and during the illness of the master the first officer did not make reasonable efforts to consult the charts. Before sunrise on the morning of the 25th the first officer ordered the man at the look-out to take his morning coffee, and the steamer was apparently at that time in shallow water, although it was not known to him. On the stranding of the vessel the first engineer at once proceeded to examine the valves of the steamer and to close such of them as were open. The carpenter of the *Arafat* immediately went and sounded the wells to ascertain whether the steamer was making water. The vessel was abandoned at 7-30 A.M. on the 26th in consequence of the natives having taken

possession of her, the natives being armed, whilst the officers and crew of the vessel were unarmed. All the steamer's papers, including the officers' certificates and the vessel's articles, were left in the *Arafat*. Secondary evidence of the effect of the articles was therefore received, from which it appeared that the crew had engaged for a voyage not to exceed three months, and were to be paid off in Bombay with a bonus equal to one month's wages to all hands, except the officers and the engineers. The crew contended that as they were ordered to leave their vessel before reaching Bombay, they were entitled to the bonus which they would have earned if they had proceeded to Bombay. On the 29th Her Majesty's gun-boat *Carysfort* at once proceeded to the scene of the disaster to render assistance. On the 10th April the *Carysfort* returned to Suwákin with the crew of the steamer. It was reported that the *Arafat* was submerged up to the main deck, there being 25′ of water all round the vessel; it was surmised that she had been filled from the seacocks having been left open, but that it was believed that she could be floated. The weather at the time of the disaster was hazy, the wind N.W., and it was blowing moderately with a slight south-easterly sea. The master stated that he could not account for the vessel being so far to the westward, unless a strong current was setting in that direction. Immediately after the catastrophe occurred the master stated that the crew were jettisoning cargo, and after having discharged 125 tons of the coals for the purpose of lightening the vessel, about 450 natives rushed on board, and having forcibly taken possession, began plundering the steamer by cutting away all the metal parts, the running gear, the sails, the awnings, &c., and drove the crew and officers of the vessel away, thereby rendering them unable to save any of the steamer's effects. Original value of the *Arafat*, £38,000; cargo, £52,000. The crew 28 men, and 1 passenger. No lives lost.

[A Naval Court of Inquiry was held in the Court of the Political Resident, Suwákin, on the 11th, 13th, 14th, 15th, 16th, and 17th of April, by Her Britannic Majesty's Consul for the Eastern Soudan, under the provisions of section 260 of the English Merchant Shipping Act, 1854, to investigate the circumstances attending the stranding and abandonment of the above steamer. After a careful consideration of the evidence, the Court were of opinion that the master did not pay sufficient attention to the navigation of the vessel on her voyage down the Red Sea, especially with regard to obtaining reliable sights to correct the error of his compass, and in not giving more distinct and definite orders to the officer in charge to superintend the navigation of the steamer during his illness, *viz.*, from the 22nd to the 24th March; and that the master was guilty of the most culpable neglect of the ordinary precautions to ascertain his position when he found himself in doubt and the engines slowed in consequence from 4-15 A.M. to 5-30 A.M., on the day in question, and in not using the deep-sea lead which would have fixed his position with reference to the 100-fathom channel to Jebel Teir; and also, that he further jeopardised his vessel by, when in an uncertain and dangerous position at daylight, not ordering the proper look-outs to be placed in order to look out for shoal water. The Court were also of opinion that the first officer was guilty of neglect of his duties as an officer next in command to the master in not paying proper attention to the navigation of the vessel prior to her stranding on the rocks, especially during the period of the master's illness; and further neglected his duties of officer of the watch on the morning of the day in question, when on watch and in charge of the deck from 4 A.M. to the time that the disaster happened, in not having enquired as to, or attempted to ascertain, the vessel's position; and when the engines were slowed from 4-15 A.M. to 5-30 A.M., that he did not suggest to the master the taking of the soundings, as the safety of the steamer depended thereon at that period. He was also guilty of great want of ordinary precaution in having called the look-out man away from the look-out at the time when his services were most required, and might have

saved the vessel. The Court saw no grounds for blaming the conduct of the second officer. The Court desired to place on record their high opinion of the conduct of, and assistance rendered by, the chief engineer and the vessel's carpenter on and after the stranding of the steamer on the 25th March. The Court also desired to place on record that the crew appeared to have conducted themselves properly, and used their utmost exertions to salve the steamer in accordance with the orders received from their officers. The Court, in pursuance of the powers vested in them by section 23 of 25 and 26 Victoria, chapter 63, therefore ordered that a copy of the report, or a statement of the case, upon which this investigation was ordered having been furnished before the commencement of the inquiry, the master who held a certificate as master, number unknown, issued by the Board of Trade, and dated December 1854, and the first officer, who held a certificate as master, number 03478, issued by the Board of Trade, and dated early in 1882, directed that their certificates be, for the wrongful defaults aforesaid, suspended for a period of three calendar months, counting from the 17th April, the date on which the Naval Court of Inquiry concluded their sitting. The Court, in pursuance of the powers vested in them by the English Merchant Shipping Act, 1854, section 243, ordered that, with the exception of the officers and engineers, the crew be paid the bonus of one month's wages which they would have earned if they had not been ordered to leave their vessel before reaching Bombay.]

APRIL.

25. The British iron ship KALMIA [of Liverpool, 1,798 tons register, official number 86272, age 3 years, classed at Lloyds 100 A1*], from Liverpool to Calcutta with a full cargo of salt in bulk, about 2,750 tons. It seemed that when the ship sailed on the 26th December 1884, there was on board the latest Admiralty chart of the Bay of Bengal, *viz.*, Bassein to Cocanada; there were 3 compasses and 2 chronometers on board, and were all in good order; and there were 4 boats on board which were properly equipped and sufficient to hold all her crew. Nothing noteworthy appears to have happened until the vessel arrived in the Bay of Bengal on the 6th April. At noon of that day her position by observation was latitude 18° 12′ N., longitude 85° 18′ E., and the course then steered by the standard compass was N. by E., true, the deviation being about one point easterly. A cast of the lead was taken at noon, but no bottom was found. The master alleged that he steered that course up to 8 P.M., when the patent log then showed that the ship had run 63 miles from the observation at noon. The master at that time supposed that the vessel's position was nearly 38 miles East of Gopalpúr and 24 miles from the nearest point of land. At 8 P.M. the ship was hauled to the wind in order to make soundings, as the master wished to verify his position, and the patent lead was hove but got no bottom at 70 fathoms. At 8 o'clock that night the master altered the course to W.N.W. by the standard compass (N.W. by N., true), with 3 points easterly deviation, which the master stated was the deviation on that course. The wind was a fresh breeze from S.S.W.; the vessel was put under topsails until daylight, and she was going through the water at the rate of one knot an hour. At midnight the course was set N.W. by the standard compass (N. by W., true), the deviation being 3 points easterly. At that time the ship having run 67 miles from noon a cast of the lead was taken and 42 fathoms water obtained, blue mud. When the course was altered at midnight, she was going through the water barely 3 knots an hour, and the wind being less all sail was ordered to be made. At 1 A.M., on the 7th, the master's belief in his estimate of the distance off the land was about 15 miles, and for that purpose the vessel was brought to the wind, and the lead being hove the master got bottom at 26

fathoms. The weather was overcast and hazy, there being very little moon; the wind was a light breeze from S.W. by S., but it altered a point to the South between 1 o'clock and the time the vessel struck the ground. There was one man on the look-out on the forecastle and another was at the wheel; the master being on deck most of the night. He then changed the course to N. by W. by the standard compass (N.N.E., true), on which there were 3 points easterly deviation, and she was going at the rate of $7\frac{1}{2}$ knots through the water. An hour afterwards the vessel was again brought to the wind for the purpose of heaving the lead, and whilst this was being done, the master observed breakers ahead. He immediately gave an order to put the helm hard up, but finding her unmanageable, the master tried to pay her off by squaring the after yards and running the jibs up, but ineffectually, as the vessel would not answer her helm, being already in the influence of the outer edge of the surf, and in a few minutes the *Kalmia's* fore foot struck heavily on the sands about 2 miles seaward of Malúd, nearly midway between Púri and Gopalpúr (Orissa coast). The ship was heading to the land, *viz.*, N.W., but afterwards slued round broadside on to the surf and commenced bumping violently, when the master ordered the yards aback in order to try and back her off, but to no purpose, as she would not move. The master seeing that nothing could be done to save the vessel, and that the only chance of saving life was to take to the boats at once, ordered all hands to man the boats. The first officer then got 4 boats out, the crew got some provisions and water and put them into the boats, but they were kept hung astern clear of the ship with people in charge of them. As a *dernier ressort* the crew hoisted the foretopsails and topgallantsails to try to back her off again, but without success. The master then directed the first officer to sound round the ship; 12′ were found forward, 13′ in the waist, and 14′ aft. The carpenter was kept at the pumps for a short time after the disaster happened, but the action of the breakers underneath her rendering it dangerous to life and to the security of the boats to remain by her, the master ordered the crew into the boats. Eventually they were lowered all safe and got clear of the ship, and all, with the exception of the master, the first and second officers, the steward, and two able seamen, took to the boats. At 8-30 o'clock on the morning of the 7th all hands, including the master, abandoned the vessel as a total loss, and after getting into the boats they hung astern for about an hour, when having the wind and current in their favour, they sailed up the coast to Púri. The master stated that as they left, the ship was bumping very violently, and it was momentarily expected that her masts and spars would come down. The four boats reached Púri about 4-30 P.M. the same evening, and went on board the British India Steam Navigation Company's steam-ship *Assyria* (which vessel was then lying in the roadstead) and applied for assistance, whereupon the master of the steamer replied that he could not go down as the wreck was in very shoal water, and that he had Her Majesty's mails on board. Early the next morning (the 8th) the officers and crew were safely landed in masulah boats and accommodated in the Public Works' Inspection bungalow and in the Mission bungalow, the dâk bungalow being occupied by the District Superintendent of Police. The Collector of Púri in the meantime ordered the police at Lubba to guard the ship's stores and cargo. The master then telegraphed to the Agents at Calcutta for assistance, and on the 10th the steam-tug *Retriever* arrived at the spot with a representative of Lloyds' Agents. It was reported that the wreck was unapproachable owing to the heavy seas breaking over her, and consequently there was no possibility of saving any part of the cargo. On the 13th she was full of water, and was soon likely to break up. On the 17th the *Retriever* landed the master and crew safely at Calcutta. The master attributed the catastrophe to the night being dark; he thought he was more to the East than he actually was, and consequently wanted to take soundings; the

ship was out of her course, and the chronometer appeared to have been in error; there was a strong northerly set of the current from the S.W. monsoon then prevailing. It was reported that the set to the eastward on the 7th and 8th was rather stronger than on ordinary days, but nothing unusual. A more or less strong current to the East and N.E. was a normal condition at the Sandheads from March to May. The first officer was on watch that night at 8 o'clock, and was relieved by the second officer at midnight. The first officer swore that the vessel was steering W. by N. ½ N. by the standard compass, which had about half a point easterly deviation, making the true course W.N.W. He said that the master altered the course several times from between midnight and 2 A.M.; as he got soundings he changed the courses by the standard compass. The second officer went on watch at midnight and found the first officer and master on deck; the first officer gave him the course W. ½ S. by the steering compass; the weather was very hazy, and a fresh breeze was blowing from the S.S.W., and the vessel was going at the rate of 2 knots through the water. The only instructions he got from the first officer were to keep a good look-out, to see that the side lights were burning, and also that the ship made her course. About 20 minutes afterwards the master changed the course to W.N.W. by the standard compass. The lead on being hove at 1 A.M. 26 fathoms were got with blue mud, after which the course was again altered to N.W. by the steering compass, and more sail being made the ship increased her speed, going between 7 and 8 knots an hour. At 20 minutes past one o'clock on the morning of the 7th, the master retired, giving the second officer orders to call him at 2 A.M., which he did. Whilst the master was below, the second officer gave no orders and did nothing, except saw that the course was kept as given by the master. He positively stated that at 2 o'clock the master, when he came on deck, told him to get a cast of the lead which was done, but as it was not a good one, the master directed a fresh cast to be taken; and whilst in the act of taking this second cast of the lead, one of the apprentices showed him the land and simultaneously the breakers off the poop. The second officer stated that at first he did not believe it was land, because it looked like a cloud rising on the horizon. On the course the ship then was the second officer considered that she was going towards the land, but how near he could not say. The ship became a total wreck and was unsaleable; that the few articles which were salvaged realized only some ₹500 or ₹600, but her cargo, consisting of salt, was entirely lost. Original value of ship *Kalmia*, £20,000; cargo, £2,221. The crew 31 men. No lives lost.

[A Marine Court of Inquiry was held in the office of the Port Officer, Calcutta, by the Chief Presidency Magistrate, on the 12th, 13th, and 14th May, under the provisions of sections 8 and 9 of Act V of 1883 (Indian Merchant Shipping Act) to investigate the circumstances connected with the stranding and subsequent loss of the above vessel. The Court recorded that on the 12th they first made a preliminary investigation under section 7 of the above Act, taking the evidence of the master and of others whose evidence appeared to be material. Whereas in the course of the preliminary inquiry the Court were of opinion that there were sufficient grounds for framing charges against the master, they thereupon framed charges against him, charging him as follows: (I), That at midnight on the 6th of April, and again an hour later, the assumed positions, respectively, of the ship *Kalmia*, as shown on the chart by the said master, were incorrect, and that the miscalculations which led to such error was the result of carelessness on the part of the said master; and (II), that, having obtained soundings of 40 fathoms and later on of 26 fathoms, he did not immediately alter his course to the eastward so as to get clear of the land. A copy of the statement of the grounds upon which such charges were framed and of the charges itself were then furnished to the accused, and the

Court thereupon ordered the trial to proceed. The Court recorded that such investigation involved a question as to the cancellment or suspension of the certificate of the master under section 13 of the above Act; and appointed as their assessors, for the purpose of this investigation, two persons having experience in the Merchant Service. Previous to the Court proceeding with the trial the Solicitor asked for the return of the ship's log-book, which had been put in as evidence during the investigation which preceded the drawing up of the charges. He submitted in support of that contention that the formal investigation which followed upon the framing of the charges against a specified accused was a new and distinct proceeding to the inquiry which preceded the drawing up of the charges, and therefore the exhibits put in during the previous investigation were not evidence till formally tendered and accepted as such in the course of the present proceedings. The Government Prosecutor contended, on the other hand, that the investigation which preceded and followed the framing of the charges was one and a continuing inquiry, and for those reasons the exhibits put in before the drawing up of the charges might be taken as evidence in the case without further formal proof. The Court were opinion that the preliminary investigation and the more formal inquiry which followed upon the framing of the charges were, so far as the matter involved in the present contention was concerned, separate and distinct investigations, and that the ship's log-book must be put in and proved, if necessary, during the course of those proceedings. The witnesses were then called, sworn, and examined, and on conclusion of their evidence the Court asked the accused whether, having heard the evidence, he wished to say anything in his defence. The accused thereupon asked to be allowed to address the Court, and on permission being given he did so at some length; upon the close of his address the Court adjourned till the 14th to consider their decision. The accused, on the requisition of the Court, handed to the President his master's certificate granted by the Board of Trade. The Court observed that the facts of this case were as follows: The ship *Kalmia* left Liverpool on the 26th December 1884, and all went well until the 6th April of the following year, when the vessel was at noon in 18° 12′ N. latitude, and 85° 15′E. longitude by observations; the ship then steered North by the standard compass, on which course there was one point easterly deviation; so that she was steering N. by E., correct magnetic course. She continued on that course till 8 P.M., when the patent log was hauled in and the ship was found to have made, according to that register, 63 miles since noon. Soundings were at the same time attempted, but no bottom was found at 70 fathoms; there was a strong breeze blowing at the time from the S.S.W. The vessel's course was then altered to W.N.W. by the standard compass on which there were three points easterly deviation, which gave a correct magnetic course of N.W. by N., and sail was reduced to topsails, jib, and staysail; she proceeded on that course until midnight, when the patent log showed 67 miles, giving therefore a distance of 4 miles run from 8 P.M. A cast of the lead was taken and gave 42 fathoms, blue mud. The course of the ship was then altered to N.W. by the standard compass, on which there were 3 points easterly deviation, which gave N. by W. as the correct magnetic course; sail was made on the vessel, increasing her speed from 4 to 5 knots an hour. At 1 A.M. on the 7th the *Kalmia* was brought to the wind and another cast taken which gave 26 fathoms. The ship was then kept away to N. by W. by the standard compass, the master still supposing 3 points easterly deviation, which gave N.N.E. correct magnetic course till 2 A.M., when she was brought to the wind and a cast of the lead taken, but failing to get any satisfactory soundings the lead was being passed along again, and whilst this was being done breakers were observed ahead. The helm was immediately ordered "hard up," but although the after yards were squared in and the fore yards braced up she failed to go off, as she was in the

influence of the surf, and she struck the ground. She then commenced bumping violently; the pumps were sounded and 8″ of water found in the well. The yards were braced aback to try and force her off stern foremost, but without success. The crew stayed by the vessel till 9-30 A.M. on the same day (the 7th), and when they left there were 11″ of water in the well. The Court were of opinion that the master committed an error of judgment in the estimate he formed of his assumed position at midnight, professedly based upon the distance run from 8 P.M., and on the deviations of his compass, and was guilty of wrongful default in that he, having got soundings in 42 fathoms, failed to mark on the chart the spot indicated to him by this sounding, he knowing at the time that the soundings were the only true guide to the proximity of the land. The master, on the contrary, preferred to work his vessel by his dead reckoning, although he had every reason, according to his own statement, to distrust the correctness of the chronometers throughout the voyage. The Court recorded that the assessors were of opinion that the master, when fixing his position at midnight on the 6th and at 1 A.M. of the 7th, committed an error of judgment in only allowing the vessel one knot per hour since 8 P.M., as he evidently made considerably more, and steering as he then was straight in for the land, all possible caution ought to have been exercised. This error of judgment was not, however, the immediate cause of the loss of the ship. Soundings having been obtained at midnight and at 1 A.M., of 42 and 26 fathoms, should have been ample evidence to the master as to his position, and certainly as to his distance off the land, the line of 26 fathoms being laid down on his chart at about 8 miles off shore. Nevertheless he shaped his course N. N. E., true, which led him almost directly on to the shore. In neglecting those soundings and shaping the course he did, *viz.*, N.N.E., true, the master not only committed a grave error of judgment, but appeared to have been culpably negligent of the warnings given to him by the soundings, and such negligence was the immediate cause of the loss of the *Kalmia*. There seemed to have been a considerable amount of negligence in the navigation of the ship from the commencement of the voyage. There was no compass book or record of observations taken for deviation kept on board. The master estimated his errors when shaping his course, and trusted to chance observations to check them; and the first officer knew nothing about the deviation,—the result being that, whilst the master stated that the deviation was 3 points on N.W. courses, being those steered on the 6th, the first officer alleged it to have been half a point only; when pressed, however, he admitted he knew nothing about it. The assessors observed that the log-book was most carelessly kept and proved absolutely useless as evidence, there being no deviations entered and no correct course—in fact, nothing whatever to show how the vessel actually steered; it did not appear to have been even examined or signed by the master. Altogether there seemed to have been an amount of indifference and carelessness to the safe conduct of the ship. The Court further found that the master was culpably negligent in the navigation of his vessel, in that he, upon finding that he shoaled his water from 42 fathoms to 26 fathoms within the space of one hour between midnight and 1 A.M., still persistently kept the ship heading in towards the land instead of hauling her out to sea, for even if the master, as he stated, supposed the vessel to be making a correct magnetic course N.N.E. when steering N. by W., seeing that the land trended E.N.E., even steering thus he was steering into the land. The accuracy of the master's statement as to his correct course at that point was, however, considerably weakened by the fact that the correct magnetic course from noon to 8 P.M. was N. by E., when the vessel was steering North. The Court desired to note their dissatisfaction at the careless way in which the log-book was kept throughout the voyage; there did not, moreover, seem to have been any daily record kept of the compass deviations either by the master or the first officer;

the latter officer indeed seemed to have been absolutely ignorant of the state of the compasses on board. The Court, therefore, under the powers reserved to them by section 18 of the above Act, ordered that the certificate of competency of the master be suspended for a period of six months, such period to be computed from the date on which the ship *Kalmia* was stranded, *i.e.*, the 7th April. Further, the Court recommended that a first officer's local certificate be granted by the Local Government to the master, in order that he may be in a position to return as an officer from India to England.]

The Lieutenant-Governor of Bengal was pleased to accede to the Court's recommendation in exercise of the powers conferred upon him by section 19 of the above Act.

26. The Native padow DOULUTPASSA [of Bhúj, 50 tons register, official number unknown, age 18 years], from Bombay to Mangalore with a cargo of coals. The tindal stated that the padow left Bombay in a leaky state thoroughly unfit for sea, consequently the crew had constantly to bail the water out; on arrival off the port of Mangalore the leak increased rapidly, and the crew being fatigued and worn out, the tindal did not wait for a pilot. On the 8th April, at 10 A.M., whilst entering the harbour, she took the ground aft at the mouth of the Gúrpúr river (Bombay coast) and broke her rudder. The tindal on warping her off found that she was filling fast, so he made sail and ran her on shore, where, owing to her rotten condition, she fell to pieces in a few hours, although only exposed to a light swell. Loss, value of padow not reported; cargo all lost, value R800. The crew, 6 men, and 4 passengers, were saved in fishing-boats. (The wreck was due to the unseaworthiness of the padow, which might have fallen to pieces at any stage in the voyage.)

27. The British iron ship CANNANORE [of Liverpool, 1,599 tons register, official number 78725, age 7 years, classed at Lloyds 100 A1], from Shanghai to Calcutta, with 800 tons stone and sand ballast. The ship sailed on the 27th February, and continued on her voyage, passing through the China sea and the Malacca Straits. All proceeded well, and she arrived on the 29th March off Pulo Rondo, North coast of Sumatra, which bore S.W. by S. ½ S. and distant 10 miles. From this island, which was the last land sighted, her departure was taken, and at noon the course set, and the ship's head was then W.N.W., there being a deviation of a point and a half easterly; the wind being light from the N.E., and the ship under all plain sail. On the noon of that day the master stated that opportunity was taken to rate the chronometers, which were found to have been slightly to the eastward. At noon on the 7th April the vessel's position was in latitude 18° 26′ N. by observation, and the longitude 85° 59′ E. by chronometer. An observation was taken by the master, assisted by the first officer; they each worked it out separately, and compared the results, but they were similar, except that his chronometers were 5 miles to the eastward. Azimuths and amplitudes were taken on every occasion, whenever it was practicable to do so. After the sights were worked the master set the course N. by E., true, and kept on that course till 3 o'clock, when he altered the course to N. E. by N., continuing on that course until the ship stranded at 2-30 A.M. the following day. At 3 P.M. the vessel was going at the rate of 7 knots an hour through the water with all plain sail set. At 4 o'clock that afternoon the course was set N. 30°. E., true, and the patent log was also set. At that time an observation was taken for longitude, and the error of the compass was found by an azimuth to be 6° West, the nearest land bearing, according to the master's reckoning, about N.W. by N. ½ N., true, distant 62 miles. The master experienced N.E. light winds up to the 2nd of April, then calms and light N.W. winds until the 5th, then a light breeze from the S.W. increasing to a moderate breeze till the 7th, thence to where the vessel was lost, gentle breeze from S.S.W. to S.W. The master continued on the course

N.E. by N., expecting that by keeping on that course it would take the vessel outside False Point, which then bore N. by E. ¾ E., distant 123 miles. He thought that there would be a strong easterly current at the head of the Bay of Bengal, but did not find any current from the time he entered until noon of the 7th. The first officer went on watch that night at 8 o'clock, and received the course from the master of N.E. by N. by the standard compass (N. 30°. E., true). He relieved the second officer, but did not get any instructions from him. He stated that there was a moderate breeze from the S.W., but the weather was hazy. At 11 P.M. on the 7th the master on going below directed the first officer to keep a good look-out, to have the side lights burning, and to call him at 3 A.M. At midnight the patent log was hauled in, and the distance shown was 96 miles. The first officer alleged that he did not ascertain the vessel's position on the chart during his watch because he had no chart; the lead was not hove at all that night, but he was told by the master to have it ready for heaving. At 12 o'clock that night the second officer relieved the first officer, and received the course N.E. by N. from him and orders to call the master at 3 A.M., to keep a good look-out, and to have the side lights burning. When the first officer went forward at midnight no land was in sight, and the deep-sea line was coiled on the poop, but not stretched along. At that time there was a man on the look-out forward, a man at the wheel, and the second officer walking up and down the poop. The other witnesses who were called stated that the night was cloudy and dark, but stars were visible occasionally. At about 2-30 o'clock on the following morning (the 8th) the second officer and the man at the wheel thought they heard the sound of the surf, whereupon the second officer went below and called the master. The master came on deck in less than 5 minutes and at once ordered the helm hard-a-port and the after yards to be checked, also letting go the cross-jack sheet, the mizentopsail, the topgallant and royal halliards. The vessel did not, however, pay off in time to avoid the beach, upon which she struck heavily in a few minutes. The ship had been proceeding at the rate of 7 knots per hour for the past 36 hours, and there was a moderate S.W. swell on. The *Cannanore* unhappily struck the ground nearly one mile South of the Davy river, in latitude 19° 57′ N., longitude 86° 21′ E. (Orissa coast) and slued round N. by W. The crew braced the yards up sharp with the port braces, having everything aback in hopes of getting her off, but it proved fruitless. Efforts were immediately made by running out two anchors (stream and kedge) astern with warps, and the crew commenced heaving on them and discharging ballast till about half past two o'clock on the afternoon of the 8th. During the whole of that day the wind had been working round to the westward and then to the northward, and the crew trimmed the yards, keeping the sails flat aback as the wind shifted. After getting off about 60 tons of the ballast the ship floated, the yards were braced sharp up with the starboard braces, but the wind, which was well from the eastward, shifted more round to the southward and everything filled, thus driving the vessel ahead on to the beach, her head being W. ½ N., true. The master tried to get an anchor out this time on the port bow, but without avail, as the surf was too heavy. During that evening, there being every appearance of a squall from the N.W., the crew were ordered to set the topsails all aback. At 8 P.M. the squall struck her, but she would not move, as it was only a moderate squall; the wind having gradually shifted towards the S.W., all the sails were furled. Early on the morning of the 9th the master sent the first officer and four hands away in a lifeboat to False Point to telegraph to Calcutta for assistance. No boats could be lowered for the purpose of examining the ship from the outside in consequence of there being too much surf round the vessel. In the meantime, there being a fine light S.W. breeze, the crew discharged nearly 50 tons of ballast from the fore hatch and trimmed a quantity aft in the hold in order to prevent her going more broad-

esid on to the beach. At night the wind freshened up with a heavy surf, the ship commenced striking, and having gradually worked on the beach brought her anchors home. On the 10th the royal and topgallant yards and masts were sent down. The wells were sounded for two days, but the vessel was found to have made no water up to this time. She now began making water at the rate of 1″ per hour. The leak afterwards increased almost every tide; at 10 A.M. of that day there were 2′ of water under the starboard fore rigging and 8′ under the port quarter. The lifeboat reached False Point harbour on the evening of the 9th, and on the morning of the 11th the British India Steam Navigation Company's steamer *Scindia* (which was then in the harbour at the time and was bound southward), with the Port Officer and the first officer and 4 men on board, proceeded down to the scene of the disaster. The master of the steamer *Scindia* was unable to render any assistance, as it was found that there were 8′ of water in the hold, and all attempts to reach her by boats were unavailing on account of the heavy surf which broke round her on all sides. The *Scindia* then left on her voyage. At 6-30 A.M. on the 12th the steam-tug *Clive* signalled her, but owing to the heavy surf did not succeed in getting her off. The vessel then struck heavily on the beach and made an inch of water per hour. At low water the ship was quite dry amidships, 8′ were found on the starboard side under the stern, 7′ on the port side amidships, and 3′ on the port side forward. On the 13th there was a fresh breeze with a heavy surf, and the vessel grounded violently and made 3″ of water per hour. The *Clive* again signalled to the *Cannanore* and said that the expenses were ₹1,000 a day, whereupon the master of the wrecked vessel, after seeing that it was not possible to approach within 800 to 1,000 yards of the ship and the chances of getting off extremely small, sent the tug away. On the following day the surf was very heavy and the spray was going right over the ship as high as the lower yards, and the crew could only work on board at low water. On the 16th the vessel had settled in the sands 10′, but was dry in-shore at low water; the master, after having got all the stores, gear, spars, &c., put on shore, abandoned the ship eventually with 10′ of water in the hold. The second officer and 4 hands remained on board in charge of the vessel, whilst the master (the master's wife and child) and 15 of the crew proceeded with the Port Officer of False Point in Native boats to Patamúndi, going through the creeks inland; but as the boatmen refused to go any farther, a large cargo-boat belonging to Messrs. Bulloch Brothers & Co. conveyed them to Chándbáli, from whence they went across in the steamer *Tyrone* to Calcutta. The first officer and the 4 men who were on board the steam-ship *Scindia* were being taken on to Point de Galle when they fortunately fell in with the inward-bound ship *Cathcart*, to which they were transferred and brought up to Calcutta. The master alleged that the vessel was running with the wind about a point on the port quarter, and shaped a course to go to the eastward of False Point light. He had no lead going on the night of the 7th, as from his presumed position the vessel would not have been in soundings until she was North of 20° N. latitude; he had given orders to sound as soon as the vessel got to that position. He said that his assumed position, presuming that he had no current at the time of striking, placed him 15 miles from the nearest soundings marked on the chart; but from books of directions and also from Heckford's Guide he was led to expect a strong easterly current. The master accounted for the disaster by a strong set to the westward, where an easterly current was expected, and to very hazy weather, whereas from the log-books of the Pilot vessels stationed at the Sandheads, it seemed that the set to the eastward on the 7th and 8th April was rather stronger than on ordinary days, but not such as would be considered unusual; a more or less current to the East and N.E. was the normal condition of the current at the Sandheads from March to May. The second officer was not produced at the subsequent inquiry as a witness, although he was the officer

of the watch at the time of the accident. There was, however, ample evidence to account for the loss of the *Cannanore* without his presence, and the master had not intimated that the second officer's evidence was necessary for his defence. On the morning of the 23rd May the Surveyor to Austrian Veritas, accompanied by the Marine Superintendent in the employ of Messrs. Graham & Co., proceeded in a tug steamer with a steam launch and jolly-boat to the scene of the wreck, arriving there at noon on the 27th, in order to make a survey on the bottom of the *Cannanore*, she having, when on her passage to Calcutta, grounded on the sands off the Davy river. After a careful examination of the vessel the Surveyors reported that they found the ship lying in a line with the sandy beach, heading due West, buried 8′ in the sand, with three lower masts, the fore and maintopmasts, the lower yards and the lower topsail yards aloft; the vessel had a strong list to port, and was exposed to the full fury of the southerly gales. On going on board at low water it was observed that she had 9′ of water in the lower hold; the ship hogged on the port side abreast of the main hatch, and the 'tween deck hatch combings broken, apparently showing that the port bilge must have given way, as the water in the vessel seemed to flow and ebb with the tide. At high water the surf made a clean breach over her, when it was impossible to get near her; at low water she was quite dry on the starboard side, with nearly 1′ of water on the port side. After taking everything into most careful consideration, the position of the vessel, the close proximity of the S.W. monsoon, and the extreme difficulty of access to the spot where the wreck lay, as, in consequence of the country being very marshy, pumps could not be taken to her by land, and there being no communication possible from the sea on account of the heavy surf, the Surveyors recommended the total abandonment of the vessel, and suggested that she be sold, as early as possible, by public auction, for the benefit of the concerned. After the vessel was surveyed, tenders were called for both by the master and Lloyds' Agent at Gopalpur for the purpose of endeavouring to float her, but there was no response. On the 18th June as the *Cannanore* could not be got off the master and crew left. The hull, fittings, &c., were subsequently sold at a public auction at Púri and realized ₹14,300. Original value of ship *Cannanore*, £10,700. No cargo on board. The crew 26 men. No lives lost.

[A Marine Court of Inquiry was held in the office of the Port Officer, Calcutta, on the 14th, 19th, and 21st May, by the Chief Presidency Magistrate, under the provisions of sections 8 and 9 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances connected with the stranding and subsequent loss of the above vessel. The Court recorded that on the 14th May they first made a preliminary investigation under section 7 of the above Act, taking the evidence of the master and first officer, whose evidence appeared to be material. In the course of the preliminary inquiry it seemed to the Court that there were sufficient grounds for framing charges against the master; the Court thereupon directed the parties to withdraw, and on their withdrawing framed charges against the master, charging him with misconduct as follows: (1), That he, the said master, was guilty of a wrongful act or default in that he, whilst navigating his ship on the night of the 7th April after 8 P.M., altogether neglected to take the ordinary precaution of verifying his assumed position by soundings; and (2), that the said master used an improper chart whilst navigating his ship on the night of the said 7th of April at a time when he was approaching land. A copy of the statement of the grounds upon which such charges were framed and of the charge itself were then handed to the accused, in accordance with the requirements of section 9, clause 2, of the above Act. Whereas in the course of this investigation it also appeared to the Court that this inquiry was likely to involve the consideration of the question as to the cancellation or suspension of a certificate, the Court determined under section 13

of the above Act to appoint as its assessors, for the purpose of this investigation, two gentlemen having experience in the Merchant Service. The Court, therefore, adjourned for that purpose until the 19th. On the Court assembling on that day, on application by the Government Prosecutor, some verbal amendments were made in the charge. These alterations were afterwards made in the copy of the charge before the Court as well as in the copy given to the accused, and his attention called to the fact. The witnesses for the prosecution were then called, sworn, and examined, and on conclusion of their evidence the Government Prosecutor informed the Court that he had no further witnesses to call—the second officer being away in charge of the wreck. The Court thereupon asked the accused whether, having heard the evidence, he was desirous of calling any witnesses. The accused whereupon replied that he did not wish to call any witnesses, and upon the invitation of the Court he made an address in his own defence, at the close of which the Court intimated their intention of giving their finding and order on the 21st, and for that purpose accordingly adjourned their sitting. The President demanded and received from the accused his certificate of competency granted him as master by the Board of Trade. The Court recorded that the facts of this case were as follows: The ship *Cannanore* was safely navigated down the China Sea and through the Straits of Malacca. On the 29th March the Island of Pulo Rondo, off the North coast of Sumatra, was sighted, the true position of that island being 6° 04′ N. latitude, and 95° 04′ E. longitude, whilst her position, as marked on the chart used by the master, was latitude 6° 04′ N., longitude 95° 12′ E. The opportunity was taken to rate the chronometer on board by that island, with the result that the chronometer was found to have been incorrect to the extent of 5 miles eastward. From Pulo Rondo the course of the vessel was directed towards False Point. On the 7th April at noon the position of the ship by observation was latitude 18° 26′ N., longitude by chronometer 85° 59′ E., the course steered up to 3 P.M. was N. by E., true, and the vessel was going at the rate of 7 knots an hour through the water with all sails set. At 3 o'clock on that afternoon the course was changed to N.E. by N. By an azimuth taken by the standard compass an hour afterwards the master found that there was 6° westerly deviation by his compass, and that the nearest land according to his reckoning bore N.W. by N. ½ N., distance 62 miles. He continued on the N.E. by N. course from 4 o'clock on the evening of the 7th, expecting that by keeping on that course it would take him outside False Point, which then bore N. by E. ¾ E., distant 123 miles; there being a moderate breeze blowing at the time. At 2-20 A.M. on the 8th the second officer, whose watch on deck it was, called the master, who had retired below at 11 o'clock previously, reporting at the time that he could hear the sound of breakers. The master immediately rushed on deck and ordered the helm to be put hard-a-port, but unhappily too late to be of any effectual service to the unfortunate vessel, which struck heavily on the beach before she had time to answer her helm. The *Cannanore* went ashore on the Orissa coast about 30 miles below False Point harbour. Several attempts were made to get her off, but without success. No soundings were taken at any time during the 24 hours previous to the time when the vessel took the ground. The ship made no water up to the 11th. On the 13th, however, she was making 3″ an hour, and continued to strike heavily on the beach, and had 9′ of water in her hold. The master and crew then abandoned her after saving what they could from the stranded ship. No lives were lost. The Court observed that they found the master guilty of culpable carelessness, in that he failed to provide himself with the latest Admiralty chart (large scale) of the Bay of Bengal, the chart used by him for the purpose of navigation being one of Messrs. Imray & Sons, dated as far back as 1873, and having none of the latest corrections marked on it. The Court recorded that from a comparison made between the chart used by the

accused and the Admiralty chart, the position of the Island of Pulo Rondo, as marked on the former chart, was 8 miles eastward of the correct position of the island, as shown on the Admiralty chart. It followed, therefore, that the corrections obtained from the sights and bearings off that island, as laid down in the erroneous chart with the object of rating the chronometers, must have placed the position of the vessel on the 7th much farther to the eastward than was her real position at the time. The Court further found that the master was seriously to blame in not taking the ordinary precaution of an attempt to verify his position at noon on that day by a cast of the lead; and that he was guilty of an act of wrongful default in having omitted to take any soundings at all throughout the night up to the moment when the vessel stranded, he being aware at the time that his ship was approaching a dangerous coast. The Court were of opinion that, had these soundings been taken, the ship would have been saved. The Court were also of opinion that the accused was guilty of extreme carelessness in having retired below at a time when he knew that his vessel was approaching the land, leaving her in the charge of the second officer alone. Upon the facts indicated on this finding, the Court were of opinion that the master was guilty of such misconduct in the navigation of his ship as was rendered punishable under the law, and that such misconduct caused the loss of the ship *Cannanore*. The Court recorded that the assessors in reviewing the facts of the case, and noting the ship's position at noon of the 7th on the chart and the course steered from that time, which was a proper one presuming that the longitude was correct, observed that the course, as laid down after 10 o'clock that same night, was a short distance only outside soundings; and had a sounding been taken at any time after that hour, the master would have got "bottom" gradually shoaling, whereas, had his position been correct, he would have got "no ground." For instance, at 10 P.M., on the 7th—working back from where the ship struck the ground—the probable soundings would have been from 70 to 80 fathoms; at midnight about 30 fathoms; at 2 A.M. on the following morning certainly not more than 20 fathoms. The master in going below and leaving the deck in charge of his second officer when making the land, showed a strange indifference to the safe conduct of his vessel, and it was quite clear that the cause of the loss of the *Cannanore* was the neglect to take soundings after 10 P.M., and such neglect was not an error of judgment, but culpable negligence on the part of the master. The assessors were of opinion that it was probable that had the second officer put the helm hard-a-port before calling the master, the ship would have "payed off" and been saved from striking the beach, and he should be severely censured for not having put the helm up; but this did not exonerate the master from not having taken soundings at the proper time. The assessors observed that the second officer not being present at the inquiry, and not having an opportunity of defending himself, it was impossible for the assessors to express themselves more strongly than they did as to his conduct. The chart by which the ship was navigated was one of Imray's dated 1873, and it was certainly not a fit and proper chart to navigate the vessel by in the position in which she was. For instance, the longitude of the Island of Pulo Rondo was shown 5 to 6 miles out of its correct position as laid down in the Admiralty chart, and it was by this island that the chronometers were rated. Again, the soundings in the neighbourhood of where the vessel was wrecked were very imperfectly marked. It appeared that the master did not try to obtain correct Admiralty charts at any port where those publications were usually obtainable. The assessors recorded that the log-book had been most carelessly kept; there were no true courses entered nor deviation to enable the same to be found; the log-book was, therefore, useless for any practical purpose,

and it had not been signed by the master daily. The Court farther desired to express their dissatisfaction with the loose and careless method adopted in writing up the ship's log-book. The error in deviation of the compass was never entered in the log-book, nor were the daily entries signed by the master. The Court were not satisfied with the manner in which the responsible duty of "look-out" was performed at the time immediately preceding the moment when the vessel struck the ground. The Court observed that they were extremely averse to attribute blame to the conduct of the second officer—it having been found impossible to secure his attendance at the time of the investigation, he being away in charge of the wreck—in his absence and without an opportunity being afforded him of making his defence; but from the evidence in the case it was apparent that the second officer heard the sound of surf some moments previous to the time when he ran down below to rouse the master. The omission of the second officer to order the helm hard-a-port before seeking the master, contributed towards the loss of the ship. Had that order been given the vessel would in all probability have had time to answer her helm and avoid the disaster. The Court were of opinion that this omission on the part of the second officer was most reprehensible and deserving of strong censure. The Court, under the powers reserved to them under section 18 of the above Act, ordered that the certificate of competency as a master, granted to the accused by the Board of Trade, under the provisions of the Merchant Shipping Act, 1854, be suspended for a period of six months from the date on which his vessel, the *Cannanore*, stranded on the Orissa coast, *i.e.*, the 8th day of April. The Court further recommended that the Local Government, under the powers conferred upon them on that behalf by section 19 of the above Act, do grant the said master a local first officer's certificate in order that the said master might therewith be enabled to return to England as an officer.]

The Lieutenant-Governor of Bengal acceded to the recommendation of the Court, and directed, in exercise of the powers conferred upon him by section 19 of the above Act, that a local certificate of a first officer be granted without examination to the master of the late ship *Cannanore*.

28. The British Indian ganja RANCHOOPRASAD [of Calicut, 93 tons register, official number 3226, age 21 years], from Kárwár to Bombay with a cargo of myrabolams and cotton. On the 22nd April the ganja was anchored off Pavas, near Ratnagiri (Bombay coast), when at 12-30 P.M., she being old and unseaworthy, lost an anchor and chain on account of contrary winds, and a plank in her bottom having suddenly given way, she filled with water and sank. Loss, value of ganja, ₹7,000; cargo, ₹15,370. The crew, 13 men, landed safely in the boat belonging to the ganja.

MAY.

29. The Portuguese Native sloop JELIM PRASAD [of Panjim (New Goa), 137 tons register, official number 1446, age 3 years], from Sadáshivgad to Panjim with a cargo of teakwood logs. On the morning of the 4th May the sloop was proceeding out of the Sadáshivgad river (Bombay coast), and when on the bar, the tide ebbing, the tindal anchored her. At 9 A.M., in consequence of a strong S.W. squall, she parted from her anchor and drifted on to the sands at the mouth of the river, where she shortly afterwards broke up. Loss, value of sloop, ₹11,500; cargo worth ₹100 was lost, and the remainder, valued at ₹5,500, was saved. The crew 8 men. No lives lost.

30. The British iron paddle steamer SHOAY-LA-YOUNG [of Glasgow, 135 tons register, official number 78815, age 8 years, classed A1 at Lloyds, belonging to the Irrawaddy Flotilla Company], was generally employed on the passenger and goods traffic on inland rivers in Upper Burma. It appeared that

she was subsequently considered useless for the requirements of the Burma trade, and for that reason the owners were dismantling her with the intention of converting her into a pontoon, a new hull having been got out from Glasgow for her boilers and engines. On the 18th May she was lying off the Dalla dockyard, in the Rangoon river (Burma coast), being dismantled, when at midnight, in consequence of a heavy storm, she foundered. The disaster occurred in the middle of the night, and there was no person on board keeping watch; a hole was knocked in her side by drift timber, of which there was a considerable quantity floating in the river, when the water came in rapidly forward, and she sank, head foremost, in deep water. Loss, value of steamer, £8,000. No lives lost.

31. The Native ganja LUKHMIPASSA [of Cutch Mándvi, 115 tons register, official number 3857, age 11 years], from Bombay to Cutch Mándvi in ballast. On the night of the 23rd May, whilst proceeding along the Káthiáwár coast, the ganja met with stormy weather with heavy cross seas. Gradually the sea rose, and wave after wave dashed over her. At 10 P.M. the rudder became disabled, and being in imminent danger of foundering, the tindal resolved to beach her, and set sail and ran her on shore off the village of Chengaria, near the port of Porbandar, where she immediately broke up. Loss, value of ganja, ₹6,500. The crew, 7 men, and 7 passengers, saved themselves by jumping overboard.

JUNE.

32. The Native ganja JAVIRPRASAD [of Cutch Mándvi, 50 tons register, no official number, age 6 months], from Zanzibar to Bombay, with a cargo of cocoanuts and shells. On the 1st June the ganja, when midway between Cape Guardafui and Sokotra island (North-East coast of Africa), met with stormy weather, and the rudder having been carried away she became unmanageable; the crew rigged a jury rudder with rafters and wood, but it proved of no use. She then commenced to leak, when the crew threw overboard a portion of the cargo in order to lighten her, but at 7-30 A.M. she was driven on the reefs off Abd-al-Kúri Island to the S. W. of Sokotra Island and broke up. Loss, value of ganja, ₹2,500; cargo, ₹2,600. The crew, 9 men, saved themselves by wading ashore, whence they were ultimately taken off by a passing bagla and conveyed to Bombay.

33. The British iron screw steamer SPEKE HALL [of Liverpool, 1,731 tons register, official number 78783, schooner-rigged, age 8 years, classed at Lloyds 100 A1, belonging to the Sun Shipping Company, and one of the smallest steamers of the Line], from Cardiff to Bombay, with a full cargo of coals, consigned to the owners. The steamer after leaving Cardiff on the 12th of May had on board a crew of 44 Natives and 15 Europeans, including officers, but fortunately on the present voyage out she had no passengers. She arrived safely at Suez, left that port at noon on the 27th May, and was due at Bombay on the 7th June. On the 3rd June a most violent cyclone occurred in the Gulf of Aden, such as had not been previously recorded. The weather on the 2nd June was dull and the sky overcast, and there was a light East wind with a long swell setting in from the same quarter. At 11-40 P.M. the wind and sea increased and torrents of rain fell, when the engines were eased to half speed. At midnight, when about 100 miles eastward of Aden, a heavy gale was experienced, commencing from the N.W., veering to the northward, round to the eastward, southward, and S.W. The sea seemed to cut up underneath the steamer's boats, which were soon broken and rendered unfit for use; the deck-houses, which were occupied by the officers, were all gutted; the tarpaulins were torn off the hatches, some of which were either burst in or washed away. The sea swept the vessel round as though in a whirpool, she was crushed by the

violence of the waves, all the boats were carried away, the engine-room was filled with water, and the steamer became unmanageable. As the water was pouring into the holds an attempt was made to secure the hatches with sails and awnings, but without success, the sea washing the men away and injuring several. By 3-30 A.M. on the 3rd the vessel was visibly settling down fast by the head, and she eventually foundered an hour afterwards, with 58 souls, nearly 180 miles eastward of Aden in the Gulf of Aden. At the time of this terrible catastrophe, the master, the officers and the crew were on the bridge, and the engineers and firemen below. The second officer (Henry Keyzar) stated that when he felt the steamer going down he got hold of a life-buoy, and one quartermaster named Thomas Usher had hold of the same life-buoy; they were both swept off the bridge together, and succeeded in getting hold of a floating spar which they clung to, abandoning the life-buoy. He heard the quartermaster say after he got hold of the spar, "I have got a barrel," which were the last words he spoke. It was dark at the time, and the second officer could not see him or anything more of him, or any one else belonging to the crew. At dawn the second officer caught another floating spar which was drifting near by, and with his belt tied both spars together, on which he floated until he was picked up by the Messageries Maritimes steamer *Peiho* at about 5-30 P.M. on the 5th, after having been nearly 60 hours in the water. He stated that several steamers passed close but did not see him, though he shouted loudly. Ultimately the *Peiho* passed very close, and the second officer held up his hat as high as he could, when one of the soldiers—she had troops on board—saw him; the officer on the bridge did not see him at first, but when he did see him it was reported to the master, who ordered the engines to be stopped and reversed and a boat was immediately lowered and an officer and 4 men proceeded towards him. They then took him on board, where he was treated with great kindness and care, and was afterwards landed at Colombo. Original value of *Speke Hall*, about £45,000; cargo, £36,000. The crew 59 men; 58 lives lost.

34. The Turkish wooden ship FATTEL BARRY [of Jiddah, formerly the *Lady Egidia,* 1,239 tons register, no official number, age 25 years, not classed], from Jiddah to Maskat in sand ballast. It seemed that the ship left Jiddah on the 11th May, and was proceeding down the Red Sea in ballast to load a cargo of salt at Maskat for Calcutta, when in the Gulf of Aden she was overtaken by a cyclone, which occurred on the 2nd June. At 7-30 A.M. on the following day, she foundered in latitude 12° 25′ N., longitude 47° 30′ E. Original value of ship *Fattel Barry,* R35,000. No cargo on board. The crew 54 men, and 11 passengers. The steam-ship *Diomed* at 5 o'clock on the morning of the 4th June picked up off rafts 32 men, consisting of the master, a portion of the crew and passengers of this unfortunate vessel, and safely landed them at Aden. The steam-ship *Glenorchil*, when 180 miles to the eastward of Aden, picked up 5 men of the *Fattel Barry* and landed them in Perim harbour, but one died from exhaustion shortly after going on board the steamer, and another of the survivors, who was also in a very precarious condition, died two days afterwards. The *Glenorchil* observing a large quantity of wreckage, steamed for above two hours with the hope of rescuing more of the crew to which the 5 taken on board belonged, but unsuccessfully. The steam-ship *Balcarres Brook* at 11-45 P.M. on the 3rd June, when in the Gulf of Aden (exact position not given), the master hearing cries of distress proceeding from the water, ordered the vessel's engines to be stopped, a boat was then lowered, and after steaming slowly round succeeded in picking up 4 men, who formed part of a crew of the *Fattel Barry*, in a very exhausted condition, and conveyed them to Aden. Nothing has been heard of the remaining 26 men, and it was supposed that they must have been drowned. (Beyond the above particulars no report of this disaster had reached this Department.)

35. The British Indian bagla DOWLUT PUSSA [of Bombay, 69 tons register, official number 2 of 1883, age unknown], from Zanzibar to Bombay, with 5 passengers on board and a cargo of shells, ebony, &c. The bagla left on the 12th May, and nothing worthy of notice happened until four days afterwards. The cargo was stowed in the hold, the shells being at the bottom of the bagla loose, and the hatch had a water-tight covering. She had no chronometer on board, and no pumps. The nakhoda stated that before leaving Zanzibar, the bagla's bottom was painted with oil and chunam, and he examined her and found her to be clean and in good order. She was a new craft, her equipments were in good order, and she had previously made two or three trips between Bombay and Zanzibar. On the 16th May she encountered squally weather, very heavy sea, and much rain, the sails were blown to pieces; and to keep the bagla afloat a portion of the cargo had to be thrown overboard, when on the next day the storm abated. On the 29th she experienced another storm of cyclonic strength, the wind and sea were very high, and the sun totally obscured, the bagla was quite unmanageable, and drifted about at the mercy of the wind and sea. On the 1st June the gale was at its maximum, and the bagla, when considerably to the northward of Sokotra Island (Arabian Sea), began to take in large quantities of water both from the bottom and the deck, and to save the bagla from capsizing the crew had to cut away the mainmast. Soon after this the rudder was washed away, and as no one could stay on deck, the crew and passengers went below and lived there for seven days. They endeavoured to help the water down by baling it out with buckets, but the leak gained steadily on her; as their food was all spoilt by the salt water they had at the time to sustain upon cocoanuts and limes. On the 5th June, when in latitude 16° 37′ N., longitude 67° 33′ E., they found the bagla was sinking fast, and just at that moment one of the crew sighted a steamer, which proved to be the British India Steam Navigation Company's steamer *Dacca*. They signalled to her and the steamer immediately changed her course and bore down towards the bagla. When alongside, a boat was lowered and the crew and passengers were all taken on board and safely landed at Bombay. The abandoned bagla was in sight, drifting about with the sea, with her hold full of water, and an hour afterwards she foundered. Loss, value of bagla, ₹8,000; cargo, ₹6,000. The crew 8 men, and 4 passengers. No loss of life.

[A Special Court of Inquiry was held in the Fort Police Court, Bombay, by the Chief Presidency Magistrate, on the 27th and 30th of June, under the provisions of section 8 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances connected with the foundering of the bagla *Dowlut Pussa* when on her way from Zanzibar to Bombay. The Court recorded that after taking the evidence of a few of the crew and a couple of passengers they adjourned, in order that they might consider their finding. From the evidence before the Court it seemed that the bagla *Dowlut Pussa,* in charge of a nakhoda (who held no certificate as nakhoda), left Zanzibar on the 12th May, bound for Bombay, with a cargo of shells, cocoanuts, mats, baskets, and ebony, and had on board 5 passengers. The cargo was stowed in the hold, the shells being at the bottom of the bagla loose and not in bags, and the hatch had a water-tight covering. She had no chronometer or watch on board, and no pumps. Before leaving on her voyage the nakhoda stated that the bagla's bottom was painted with oil and chunam, and he examined her and found her to be clean and in good order; she was a new boat, tight and strong, and her equipments were in order; but she had previously made two or three trips between Bombay and Zanzibar. On the 16th May the wind was very strong, there was a heavy sea, and it was raining, the sun could not be seen; two sails were blown to pieces, and the crew were compelled to throw one or two muchwa-loads of cargo overboard. The bagla proceeded on her passage, and about the 29th

she met with another more severe storm; she shipped heavy seas from both sides, and was nearly full of water. The crew were cutting away the mainmast, when it was blown down and fell into the sea. On the 1st June the rudder was carried away, after which she drifted, and the nakhoda alleged that on account of the severe weather the crew and the passengers could not stay on deck. All hands went below and remained there till they were picked up by the steamer *Dacca*. On the 4th June a large quantity of water was coming in at the bottom of the boat, and the bagla appeared to be sinking. On the following day the crew sighted a steamer, to which they signalled by waving their clothes. The vessel, which turned out to be the British India Steam Navigation Company's steamer *Dacca*, came towards them, lowered a boat, and took the passengers and crew, 13 in all, on board. The craft was then seen in a sinking condition, fast drifting away. On the 6th the *Dacca* arrived at Bombay, and the passengers and crew were landed there. The nakhoda stated that his crew did all they could to bale the water out, assisted by the passengers. Large quantities of water got down from the deck into the hold through the hatch, which the nakhoda stated that they were obliged to keep open to enable them to bale out the water. The bagla was also leaking, but they could not find out where the leak was on account of the shells being at the bottom of the craft. He could not say whether the caulking had given way, or she had sprung a leak. The bagla rolled much, and the cargo shifted backwards and forwards. The serang, two of the khallasies, and two of the passengers corroborated the statement of the nakhoda, who attributed the loss of the craft to the bad weather and her making water. The Court upon the evidence concluded that the abandonment of the *Dowlat Pussa* at some considerable distance from Bombay was in consequence of the bagla having encountered a severe cyclone on or about the 1st June and sprung a leak. During that storm her mainmast was cut down and her rudder was carried away, and she was drifting at the mercy of the wind and seas for several days. There was no evidence as to where she sprung a leak, but it was probable that some of her caulking started from her seams during the time she was so drifting. The Court considered that the nakhoda, the crew, and passengers did all that was possible with their limited means to try and save the craft, and suffered severe privations before they abandoned her. The Court were strongly of opinion that vessels of this class going the distances they do should be provided with proper pumps.]

36. The French wooden barque PATRIE [of Bordeaux, 551 tons register, official number 6774, age 14 years, classed at French Veritas A. I.], from Pondicherry to Réunion *viâ* Cocanada and Vizagapatam, with only a part cargo. It seemed that the barque left Pondicherry with 9 passengers on board and 140 tons general cargo and 150 tons ballast, to load a cargo of seeds and rice at Cocanada and Vizagapatam. At 7-25 P.M. on the 8th June the barque stranded on Point Gordeware (Godavery), entrance to Coringa or Cocanada harbour (Madras coast). The master stated that he mistook the beacon on Point Gordeware for the red buoy, but in reality the master, whilst passing by the point, was hugging the shore, and consequently ran aground. The weather at the time was fine and clear, the sea smooth, and the wind blowing a fresh breeze from S.S.W. At 7-25 P.M., during the master's watch on deck, the vessel suddenly struck, taking the sands a short distance from the Point. The whole of the crew were at once mustered, the boats got out and anchors were at once laid out, and attempts were made to kedge her off with the aid of the boats, but unsuccessfully. The night was a fine one, and at 5 o'clock that afternoon the lead was hove, and gave a sounding of 39 fathoms; the lead was not cast again until the disaster occurred, when the depth was 19′. Help was rendered by the Marine authorities at Cocanada, the master and crew of the French barque *De Forcade La Roquette* and others, but were of no avail, as the ill-fated

vessel had broken her back and was fast breaking up. On the 9th June the Surveyor to the port of Cocanada, accompanied by a ship-master, proceeded on board the barque *Patrie*, lying wrecked on the sands off Point Gordeware, in order to make a survey on that vessel to ascertain whether she had sustained serious damage, and to report whether it was possible to put her into the same good condition as she was in before the catastrophe happened. The Surveyors, after having made as careful an examination as could be done, reported that they found the *Patrie* lying stranded on Point Gordeware, and on sounding round her the depth of water obtained was 11′ aft and 12′ forward; the water mark, as shown by the figured marks on the vessel's stern and stern posts, was 14 6″ aft and 15′ forward; it was therefore clear that the barque was embedded 3′ 3″ in the sands; the water in the hold was up to the lower deck beams, and covered all the cargo, which was in a state of fermentation. From the appearance of the sheer of the vessel it was evident that the *Patrie* was bilged and her back broken. Under the above circumstances the Surveyors were of opinion that it was quite useless to make any attempt to save either the barque or her cargo, and advised that she be dismantled, and that her rigging, furniture, general equipage, &c., be salved and taken to Cocanada and sold by public auction, and that her hull, together with the cargo as it might then stand after dismantling, be disposed of in a like manner for the benefit of all concerned. The wrecked barque lay on her beam ends full of water, and the master, the crew, and passengers left the *Patrie* soon after she ran aground; and all hopes of getting her off was abandoned. Original value of barque *Patrie,* ₹32,000, cargo ₹34,500. The most valuable portion of the cargo, consisting of cloths, was salved by divers and sold by public auction for ₹32,185. The hull of the vessel, with the lower masts and their appurtenances, realized ₹1,200; the rigging, and furniture of the barque were sold for ₹5,177. The crew 17 men, and 9 passengers. No lives lost. (A Court of Inquiry was held at Cocanada by the Consular Agent for France concerning this disaster, but its result had not been furnished to this Department.)

37. The British Indian wooden barque JABREE [of Bombay, 695 tons register, official number 4 of 1867, age 18 years, class not stated], from Zanzibar to Maskat, with a general cargo and 40 passengers on board. The barque had reached Rás-al-Hadd on the 9th June (East coast of Arabia) when she was caught in a gale and shipped large quantities of water; the gale increasing with a heavy breaking sea, her bottom worked open owing to the constant pitching and straining, the water rushed in, and within a few hours she foundered; 7 of the crew managed to climb into an empty wooden water-tank which had been washed off the deck as the vessel sank amidst the "whistling of the wind and the apparition of the men and spirits in the sea." In that tank the seven men lived for 10 days without either food or water, but after the lapse of those 10 days one person died daily, the body being daily flung overboard, the tank drifting on steadily towards the coast of Cutch at the rate of 28 miles a day, a rate considered by the Port Officer of Bombay possible. The sixth man died whilst within sight of land; the last survivor managed to crawl ashore at Jakáo in Cutch, saw a *pir's* (a Hindu saint's shrine) place with a flag, and made for it; but finding it deserted, he apologised to the *pir* and appropriated his flag to cover his person, as he was quite naked. He also found a pot of millet, but this, on account of his parched throat, he could not readily swallow, until he had moistened it with sea water; thus refreshed, the only survivor of the *Jabree* was able to find a human habitation, where he was kindly treated, and where he was laid up for a long time with fever. Original value of barque *Jabree,* ₹30,900; cargo, ₹25,000. The crew 60 men, and 40 passengers; only one of the crew saved in a dry wooden water-tank.

38. The British wooden barque COPELAND ISLE [of Rangoon, 681 tons

register, official number 81907, age 16 years, no class], from Rangoon to Bombay, with a cargo of rice and teak timber. It appeared that the *Copeland Isle* was originally an Italian barque, having been built at Lavagna in 1869, and bore the name of *Marina Rocca*. In April 1882 she sprung a serious leak when to the westward of the Andamans, and put back to Rangoon for examination and repairs. Surveys were held, and the Italian Consul, finding that the cost of repairs would be greater than the value of the vessel, condemned her. The *Marina Rocca* was subsequently sold by public auction at Rangoon some time that same year, and purchased by a ship builder (the owner of the Dalla docks), who had her surveyed and repaired, and afterwards registered at Rangoon in January of the following year. On the present voyage she sailed from Rangoon on the 1st April for Bombay, with a full cargo of rice and cut teak timber. The master was informed that part of the cargo was insured, but did not know whether the vessel was insured. On leaving for her destination the barque drew 19′ 6″ forward and 20′ 3″ aft, and had 5′ of freeboard. She had one hold in which the cargo was stowed, a portion of the timber being placed underneath the rice, and a portion being used for shifting boards placed fore and aft on each side of the stanchions. The cargo was properly stowed, and there was proper dunnage. The vessel had ' tween deck beams, but no laid deck, a lazarette and a lower forecastle. About a month prior to her leaving Rangoon the *Copeland Isle* was examined by two surveyors as to her seaworthiness and general equipments, who reported that after a careful examination they found that the barque was supplied with new fore and main masts, new fore and maintopmasts, new fore and main yards, new trussle-trees, and cross-trees on both fore and mainmasts, new wire fore rigging, and new lanyards throughout; she was well supplied with sails, running gear, anchors and chains, and all other requisites for the safe navigation of the vessel. The Surveyors were of opinion that her decks and topsides had been properly caulked, and considered her to be tight, staunch, and strong, and fit to carry a dry and perishable cargo to any part of the world. On the 1st April the barque was finally surveyed by the Surveyor to the port of Rangoon. It was reported that he sounded the wells and found 15″ of water; he then sealed the pumps, and when he returned on board again after 10 hours, found on sounding the well 20″. It was noticed that the Plimsoll mark was some 2″ above water, and the vessel showed a good side of over 5′. He was therefore of opinion that her general equipments were good, and, as far as he could judge, failed to see any reason for her not going to sea. The master had only two charts on board, one of the Gulf of Martaban published by official authority, and the other of the Indian Ocean by Messrs. Imray & Sons, the latter being on a scale of half an inch to a degree. He had only Norie's and Berger's Epitomes, a nautical almanac, and Captain Heckford's Sailing Directions of the Gulf of Martaban. There was no signal book nor any regular code of signal flags on board; but there were three compasses—a steering compass, an azimuth compass for taking bearings, and a boat's compass. The master had one chronometer which belonged to him, and was in good order, and which was tested along with the compasses off China Ba-keer at the mouth of the Rangoon river. There were three boats on board in good condition and properly equipped; there were two fly-wheel double action pumps in good order, which had open pipes in the well but no roses, and usually sucked at 13″; the well was protected by proper casing, and there was a free passage from the deck to the well. The barque had wooden hatches properly fastened down, with new tarpaulins over each; and there were no ventilators to the hold, but it could be ventilated by the hatches. The master stated that the cargo was shipped by a Hindu merchant of Rangoon, but he did not know to whom it was consigned. On the *Copeland Isle* leaving Rangoon, her master received no particular instructions from the owner except that he was

to lie off China Ba-keer as long as it was necessary to set up the rigging, and afterwards to push on to her destination as fast as he could, and that on his arrival there he would receive a letter appointing an Agent. On the night of the 7th April, on leaving China Ba-keer, the barque made water, there being a heavy S.W. sea, and the two topgallant sails, a gaff topsail, two staysails, and a jib were blown away. She was pumped out after that every four hours, and made 2″ to 6″ of water an hour, according to the weather. She leaked all over even before she sailed on her voyage, and suffered from what the master in his evidence termed *general debility*. The first officer alleged that the barque was comparatively old, and the chances were about even of the vessel accomplishing a voyage in safety, or going down with all on board. On proceeding from the entrance to the Rangoon river it was discovered that the provisions and stores were short, there being no beef or biscuits on board, and only 3 gallons of cocoanut oil, 5 gallons of kerosine oil, 12 gallons of linseed oil, and about 5 gallons of wood oil. The barque proceeded on her voyage and encountered South to S.W. winds, from nearly calm to heavy squalls with half a gale, and a good deal of thunder and lightning, till she reached Chagos Archipelago, where for three days she experienced the S.E. trade winds. After passing the Chagos Group the master could not get the vessel to the westward on account of westerly winds, and the barque was in consequence edged off towards the Lakadivhs. Nothing particular occurred till the 6th June, when the wind increased with heavy squalls from W.N.W., and a very mountainous sea from the same direction. The master stated that he never heard of the wind to raise such a sea, and on that day the barometer, which was an old Italian one, fell to 77·50, which the master considered would be equal to 29·20 by an English barometer; but he also stated that he placed no reliance on that barometer. After the night of the 6th the wind increased to hurricane violence, with furious squalls, thunder, lightning and rain, and a fearful sea running; this weather continued up to the 10th, when the master and crew were compelled to abandon the vessel. The master alleged that on the 7th the *Copeland Isle* commenced to leak very much; she was labouring and straining a good deal, and one sail after another was blown away. On the barque making so much water and getting so near the reefs, the master could not hold her up to the wind. After consulting his officers he thought it prudent to run her through the reefs to see whether he could not get better weather to the eastward of the Lakadivhs. The master accordingly put the vessel before the wind, but she continued to make very much water, and 50 tons of the cargo had to be jettisoned. After the 7th all hands were engaged pumping day and night, but they could not keep the water down. On the 10th the barque was about 70 miles due West of Mangalore (Malabár coast), and there was then nearly 10′ of water in the hold; the pumps got choked through the rice which had burst from the bags. The master then called the crew and ordered the boats to be got ready, but he stated that the crew were useless, and some of them burst out crying. He then pacified them by saying that if they kept the pumps going all night, and also jettisoned more cargo, he would try and beach the barque on the Malabár coast certain by daylight. The master then set the course for the land, steering E.N.E., but the increasing heavy cyclone day after day and the mountainous sea running, smashed the boats on the deck, the decks swept, bulwarks carried away, &c., made all hopes of saving the barque futile. The crew, therefore, kept on pumping and jettisoning the cargo all day on the 10th; when at 2 o'clock that afternoon, as they could not reduce the water in the hold, they began to get the boats ready to leave the vessel. Two of the boats were smashed—one on deck and the other whilst being launched; but the crew, however, managed to lower the long-boat, and all hands got into her at 5 o'clock that same afternoon. After all the crew (consisting of 26 all told, including the master and the first and second officers,

the remaining 23 being lascars) were safely seated in the boat, the master stated that he went back and sounded the well himself and found about 12′ of water in the hold; the barque was rolling very heavily, and there were fearful squalls. The master then got into the boat and the *Copeland Isle* was deserted. Unfortunately there were no provisions in the boat except 2lb of flour, as the rest had to be thrown overboard to lighten the weight as much as possible, and they had no fresh water, as no one was able to get to the tanks on account of the quantity of water on the vessel's deck. Happily it rained occasionally, and to some extent the crew succeeded in assuaging their thirst by sucking pieces of wet canvas. The soles of the feet of the men became so hardened and fissured that solid pieces of flesh fell off, which some of them, gone crazy with hunger, greedily devoured. The master was of opinion that the *Copeland Isle,* during the heavy weather she encountered, leaked all over, and attributed the leakage to the barque having strained herself everywhere. He considered that the position of the vessel by dead reckoning, when she was abandoned, was latitude 12° 50′ N., longitude 73° 37′ E. It was reported by the master that at 6 P.M. she was lurching over first on one side and then on the other, and that they could not see her afterwards, and it was presumed she must have foundered at once, being heavily water-logged. The master stated that about the same time he then ordered canvas to be nailed round the gunwale of the boat to keep the sea from breaking over her. They proceeded towards the Malabár coast, keeping the boat before the wind and sea, and on the 13th, the men, after undergoing great sufferings and privations in their attempts to save their vessel, and subsequently in their efforts to reach land, arrived at Kúmta. Ashore the men had to subsist on mangoes and cocoanuts forcibly taken from the trees, as the people refused to give them food. The crew after landing at that port beached the boat and left it in charge of the Magistrate there, who had them sent on to Kárwár in bullock carts; thence they were safely conveyed to Bombay, in the British India Steam Navigation Company's steamer *Goalpara,* on the 29th June. Original value of barque *Copeland Isle,* R60,000; cargo, R94,125. The crew 26 men. No lives lost.

[A Special Court of Inquiry was held in the Fort Police Court, Bombay, by the Chief Presidency Magistrate, on the 2nd, 7th, and 11th July, under the provisions of section 8 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances connected with the foundering of the above vessel off Mangalore, in the cyclone of the 10th June. The Court on the 2nd July assembled, and after reading the papers received with the Resolution of Government appointing the Court, the evidence of all the witnesses produced in this case was taken and adjournments took place on the 7th and 11th July for further evidence, and on the latter date they considered their report. After a careful consideration of the evidence, the Court were of opinion that the foundering of the barque *Copeland Isle* at sea, in about latitude 12° 50′ N., longitude 73° 37′ E., was due to stress of weather encountered by the vessel on her voyage from Rangoon towards Bombay, especially the weather experienced from the 5th up to the 10th of June, the day on which she was abandoned. The Court recorded that the barque had been carefully overhauled, and had received extensive repairs before leaving Rangoon, and was well found in sails and running gear; that she was not overladen, and had a sufficient crew for the voyage. She appeared, however, to have been very insufficiently provided with oil, beef, and biscuits, and the Court observed that the master ought to have seen that those stores were in sufficient quantities on board, and ought not to have trusted implicitly to others to see after them. There were no proper charts for navigating the vessel along the West. coast of India, or in the Indian Ocean, and no sailing directions or book of lights for that part of the voyage. The Court recorded that it was the duty of the master, before

leaving Rangoon and proceeding on his voyage, to have seen that he had proper charts, sailing directions, and books of lights on board, and he had laid himself open to very great censure for his neglect of duty in that respect. As such neglect of duty did not cause or contribute to the loss of the ill-fated barque *Copeland Isle,* the Court observed that they had no power to deal with his certificate. The Court, however, considered that the master was deserving of much credit for the seamanlike manner in which he behaved up to the time of, and after, the abandonment of the vessel. The Court severely reprimanded the master for the neglect of duty he had displayed, and returned to him his certificate.]

39. The British Indian padow RUPAREL [of Mahúva, 27 tons register, official number 257, age 3 years], from Bombay to Mahúva with a cargo of rice, jowari, &c. On the 10th June the padow, when near the Bhagal Bara creek, in the Mahúva harbour (Gulf of Cambay), met with stormy weather and began shipping heavy seas; the tindal was unable to manage her, and drifting on the sands she immediately broke up. Loss, value of padow, ₹6,000; cargo worth ₹2,000 was lost, and the remainder, valued at ₹2,000, was saved. The crew, 7 men were saved in the padow's boat.

40. A British Indian kotia (name unknown) [of Noakháli, 69 tons register, no official number, age 9 months], from Bákerganj to Noakháli in ballast. On the 11th June, when in the Megna river (Sunderbuns), the kotia met with a storm which prevented her progress, and having sprung a leak, the crew commenced baling the water out. At 1 P.M., when near the Gazeer chur, owing to the crew not been able to keep the leak under, she filled rapidly with water and sank Loss, value of kotia, ₹5,000. No cargo on board. The crew 13 men; one life lost.

41. The British iron screw steamer SERAGLIO [of Glasgow, 1,165 tons register, official number 80693, two-masted schooner-rigged, age 3 years, classed at Liverpool Lloyds 100·A1], from Cardiff to Bombay with a cargo of coals, nitroglycerine, various kinds of acids, and a small quantity of dynamite. It appeared that previous to her departure from the Cardiff docks on the 10th May the cargo was stowed in the vessel to the satisfaction of the Board of Trade Surveyor, and was loaded in bulk with coals in her four holds. No. 1 hold was loaded up to the main deck; No. 2 hold was also loaded with coals, and there were proper magazines built on two sides for the dynamite; No. 3 hold was loaded with coals up to the 'tween deck, and No. 4 hold was loaded partly with acids and partly with coals. The coals were trimmed so as to leave a space of one or two feet from the deck for ventilation. The steamer when she left Cardiff on the 10th May had on board a cargo of 2,000 tons of coals, and the acids and dynamite 270 tons, besides 380 tons of coals for her own consumption. In the docks the vessel drew, when laden, 21′ 6″ aft and 21′ forward, and had a freeboard of 4′ 6″ when loaded up to Plimsoll's mark. There were on board all the necessary books and charts for the voyage and the master had a copy of Shadwick's Law of Storms. She had 4 boats, all properly equipped, which were swung inboard and rested on chocks, and were properly secured. There were 4 hatchways, besides a lazarette hatch and a forepeak hatch under the topgallant forecastle. She had 10 ventilators through the main deck; she also had a topgallant forecastle and engine-room house which had two iron doors in the alleyways and one aft, and it had a skylight over it. There was also a saloon house with cabins, and an after-wheel house. There were four water-tight bulkheads besides the collision bulkhead, three of those being before the engine-room and one forming the after part of the engine-room; there were besides two bulkheads which were not water-tight—one was between the two after holds and the other formed the after part of the athwart ship coal-bunker; the three forward water tight bulkheads had sluices which were

in good working order; there were two ballast tanks built into the vessel, one aft for holding 300 tons and one forward for 60 tons of water. She had in addition other coal bunkers, athwart ship bunker forward of the stokehole capable of containing 200 tons of coals. She had two bilge pumps in the engine-room, which communicated with all the holds and ballast tanks, and could be connected with the donkey engine; there were four ordinary break pumps flush with the deck, one pump to each hold, also hand pumps. The *Seraglio* did not leak, and was stated to have been a good sea boat, having been built three years ago. The master joined the vessel on the day she was launched at Greenock, and she had made several voyages, but had required no repairs. After leaving Cardiff on the present voyage she touched at Malta on the 21st May and took in 150 tons of coals for her own consumption; she afterwards arrived at Port Said on the 26th, where she took in 70 tons of coals. She left Suez on the 28th, then drawing about 21′ 3″ aft and 21′ forward. The steamer had an uneventful voyage until the night of the 3rd June, when 30 miles South of the port of Aden she fell in with the cyclone which proved so disastrous to herself and also to the steam-ship *Speke Hall*. The vessel was driven about all the following day by the merciless fury of the wind, but the succeeding day the weather was again fair and she continued her passage down the Gulf of Aden up to midnight of the 8th, when the steamer was in the Arabian sea in latitude 14° 54′ N., longitude 67° 15′ E. A furious hurricane then commenced at N.E., lasting throughout the whole of next day, and during that night the gale increased in violence from the N.W., with very heavy rain, thunder, and lightning, causing tremendous seas from the S.W. to break over the vessel; and a large "sea anchor" had to be rigged to keep her hove-to. At 10 o'clock, whilst the *Seraglio* was hove-to, the steam-steering apparatus gave way, when the first officer and the carpenter rushed aft and the hand-wheel was brought into requisition to guide the steamer. This proved no easy task to the men to whom the duty was entrusted; but despite the fact that the sea broke into the wheel-house with great violence, they bravely did their work; and two of the crew got severely injured, one of whom had his hand broken by one of the spikes of the wheel. By dint of persistent labour the steam apparatus was got in working order on the morning of the 9th, and hardly had this been accomplished when the hand-steering appliance gave way, and soon afterwards the steam gear again failed. The constant "kicking" of the vessel must have strained and damaged the rudder post, for the water poured from that direction into the stokehole and engine-room, putting the fires out. Several attempts were made to render the rudder serviceable, but without success. The whole of the boats having been damaged and swept away, and the steamer being unmanageable and threatening to become water-logged, the situation of the crew became precarious, and they set to work baling the water out of the stokehole up through the ventilators with ash buckets. There was no time to cook food, for every man heartily joined in the work of saving the vessel, and they sustained their strength by a small daily ration of preserved meat shared between them, together with some biscuits and water. On the 10th the steamer was got round again with great difficulty, with her high side to the sea. At that time the water was very much increasing in the engine-room and the stokehole, when another effort was made that afternoon to run the vessel before the wind, in order, as the master stated, to get nearer Bombay. There was a difficulty in doing so, as there was little or no steam, and the *Seraglio* would not steer, whereupon the master went down himself to see that every one was doing his duty in coaling, and the water in the stokehole carried him two or three times from one side to the other, nearly killing him; as it was he received severe injuries. At first it seemed as though their endeavours were likely to be crowned with success, and the crew redoubled their exertions. On the 12th the water began steadily and surely to gain upon them, but still they

struggled on, hoping to arrest the progress of the foe. The next day (the 13th) became evident to the crew that their undertaking was hopeless; and whilst a portion of the men continued to check the progress of the rising water in the hold, the others set about providing means for abandoning the steamer. A small life-boat, which had been damaged at an early stage of the cyclone, had fortunately filled with water, and this had prevented it from being farther damaged. It was emptied of its contents, and the men exercised their ingenuity in contriving means for making it seaworthy. The whole of the life-buoys on board were broken and the cork placed on the outer sides of the tiny boat and covered with canvas, rendering her more buoyant, whilst the inner seams of the boat were filled with white lead to render her water-tight. She was then placed across the vessel amidships, and as the steamer rolled she was launched into the sea; this was done with ease, as the deck of the vessel was then nearly level with the sea. The master, who had behaved most gallantly during the whole of this trying time, and had kept at his post after he had several times been severely injured about the head, then pointed out to the crew that it was impossible to save any of their kit; and the men, following the example of the master, got into the boat with only the most scanty clothing. The crew, however, took the precaution of taking four breakers of water, containing about 35 gallons, two sacks of biscuits, and two compasses. As the crew, 25 in number, abandoned the *Seraglio,* she seemed likely to go down any moment; and as she contained such a dangerous cargo, they deemed it unwise to stay near the sinking steamer, dreading that some unforeseen accident might cause an explosion. The men were huddled together in the boat, the firemen, &c., having to lie in the bottom. The crew pulled for some distance in rather a rough sea, and then utilized a piece of canvas and two sheets for sails. When the boat left the vessel, she was 350 miles from Bombay, and for that port they directed their course; the sea was happily much smoother, and with a favourable breeze they made fairly good progress, but saw no sail until the morning of the 16th, when the masts of a vessel were observed. The boat steered towards her until she could plainly distinguish her hull. She seemed to have stopped, but went on without waiting for them; the steamer was a Frenchman, and the crew of the *Seraglio* imagined that those on board, thinking that the boat was simply a Native craft, pursued their voyage. The unfortunate castaways held on their course, and finally on the evening of that day their anxious gaze was rewarded with a gleam from the Outer light-ship, Bombay harbour. Their troubles in a tiny weather-beaten boat, after undergoing great sufferings and privations in their attempts to save the vessel, and afterwards in their efforts to reach port, were now nearly over, and about 1 o'clock the next day they disembarked at the Apollo bandar, in the harbour of Bombay. Original value of *Seraglio,* £ 23,320; cargo, value not known. The crew 25 men. No lives lost.

[A Special Court of Inquiry was held in the Fort Police Court, Bombay, by the Chief Presidency Magistrate, on the 22nd, 23rd, 24th, and 27th June, under the provisions of section 8 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances connected with the foundering, on the 13th June, of the steam-ship *Seraglio,* when nearly 350 miles distant from the port of Bombay. The Court on the 22nd July assembled, and after reading the papers with the Resolution of Government appointing the Court, recorded the evidence of all the witnesses produced in this case, and adjournments took place on the 23rd, 24th, and 27th, for further evidence, and on the latter date they considered their report. The Court, having carefully weighed the evidence laid before them, were of opinion that nothing noteworthy appears to have occurred until the vessel arrived in the Gulf of Aden. The steamer had the usual fine weather in proceeding through the Red Sea, but on the night of the 2nd June, at about 9 o'clock, after passing the Island of Perim, the weather looked very threatening,

The master stated that he then had all canvas taken in and secured. An hour afterwards the vessel was struck by a tremendous squall from the N.E., accompanied with thunder and lightning; and during the night, whilst proceeding down the Gulf of Aden, the steamer encountered heavy squalls from all directions and from all points of the compass, with thunder and lightning and rain in torrents; it being perfectly dark all round. At about 8 A.M. on the following day (the 3rd), the master stated that he supposed the vessel's position to be some 30 miles south of Aden; that he had similar weather on the previous night and the sky appeared dismal. It looked to him like what he had experienced before when near the Island of Mauritius—a regular hurricane sky; the barometer, which was a light set glass, had gone down to 29·0. At noon the wind chopped round to S.W. and blew a perfect hurricane. There was a heavy swell from the N.E., the wind being from the S.W., and the sea rose in pyramids and burst down on the ship's decks with very great violence. The master continued his course through the Gulf of Aden until about 2 P.M., when the rain was pouring down in torrents, and he could not see anything; he then determined to get the vessel's head to the S.W. and let the bad weather blow past him, but as she seemed to be getting into worse condition by going on, she lay-to with her head to the S.W. and remained so for nearly 4 hours; the weather then moderated and the glass rose a little. At 6 o'clock that evening the master put the steamer on her course again. During that night he encountered squalls from the N.E. and also from the S.W; there was lightning, and the rain was very heavy. On the morning of the 4th the weather was more moderate and evidently clearing up; the glass was rising a little, and the vessel continued on her course. The chief engineer stated that after the heavy gale of the 3rd the steamer seemed to make more water from aft than usual, but that being able to keep it quite down with the pumps, he never reported it to any one. Up to the 8th June the *Seraglio* had moderately good weather. On that day, at midnight, there were strong squalls and the wind freshened up from the N.E. The vessel was then in latitude 14° 54′ N., longitude 67° 15′ E., Arabian Sea. On the following morning the wind increased from the N.W. with a tremendous sea setting up from the S.W., and very heavy rain with thunder and lightning. As the morning went on the wind still continued with great force from the same quarter, and at noon it was blowing a perfect cyclone. In the afternoon the sea increased from the S.W., and there was also a sea setting from the N.W., together causing a heavy confused sea. The *Seraglio* was labouring and shipping large quantities of water over all, whilst she was running with her foretopsails set, a lower topsail, and a reefed upper topsail. At 4 o'clock that afternoon the master stated there was every appearance that the vessel was in a cyclone, and after another hour he had made arrangements to heave the steamer to with her head to wind towards the N.W. In attempting to take in the topsails they were blown to pieces, and a large quantity of oil was then poured overboard to smooth the water to allow the vessel to be rounded-to, which was done with great difficulty. The steamer shipped much water in coming to, but nothing was smashed. At 10 P.M. that same night, when hove-to, the steam-steering gear parted, when the first officer and the carpenter went aft to connect the hand-steering gear, and the master ran forward to get a sea anchor he had prepared over the bows. The vessel got into the trough of the sea, and she was straining and labouring excessively; the sea was breaking over the after part and completely submerging the vessel, and nothing could be seen but white waves breaking round her aft, which continued during the night. The master stated that the steamer was pretty well unmanageable in the trough of the sea all that night, and oil was being constantly poured overboard until they had exhausted nearly all they had. The first officer, the carpenter, and the boatswain got into the wheel-house aft through the window. At that time everything had been gutted out of it and

the doors carried away; and with great difficulty the crew managed to get the pin into the head of the rudder and connected it with the hand-steering gear. At that time she was dipping the seas right over the top of her wheel-house and filling it at times. The *Seraglio* steered by the hand gear until the following day, when the crew got the chains of the steam-steering gear connected with the tiller, but it was no sooner connected than the after gear gave way. The master then steered the vessel by hand from the bridge, and whilst doing so two of the crew got injured. At 6 o'clock the next morning (the 10th) the chief engineer reported to the master that the vessel was making more water than could be discharged by the pumps. The master at once had a consultation with the first officer and the chief engineer as to the cause of the water coming into the vessel, and immediately ordered all available hands to commence baling water out of the stokehole up through the ventilators with ash buckets. The chief engineer stated that he went on watch at 4 A.M. on the 9th; it was blowing a gale of wind, and the vessel appeared to be doing all right, but she had a list to starboard. Nothing unusual was reported to him; she seemed to be making nearly the same water as ordinarily, but during the day the water increased slightly, and the pumps were kept working continuously during the day; going constantly to the bilges to see that the roses were clear. He had occasion at times to change the pumps to the after-hold to keep the water down there. On the evening of the 9th he summoned all the engineers and the firemen to the engine-room, as it was looking a little serious; the roses were examined, and extra men were put to work the fires, as the vessel was rolling about a great deal. At that time the bilge injection pipe was clear, as the steamer had listed so much to starboard; the roses of the bilge injection and the other roses were found clear. On that evening he shut down the water-tight door to the tunnel, and did not attempt to pump any more water from the after-hold, but kept the pumps on the engine-room. During the night the water gained very little on them, but afterwards it steadily gained. On the morning of the 10th he made a report to the master, and in a very short time the water increased so much that the port fires were nearly extinguished and were useless. An effort was then made to put the vessel on the other tack so as to enable the chief engineer to get the bilge suction pipe to work. She was accordingly brought round, but had a heavy list to port, which the master considered was caused by the coals shifting on account of the heavy lurches the steamer had been making. The *Seraglio* was then got round again with very great difficulty with her high side to the sea. At that time the water was increasing fast in the engine-room and the stokehole, and another effort was made that afternoon to run the vessel before the wind, in order, the master stated, to get nearer Bombay. There was a difficulty in doing so, as there was little or no steam, and the vessel would not steer, whereupon the master went down himself to see that every one was doing his duty in coaling, and the water in the stokehole carried him two or three times from one side to the other, and nearly killed him; he receiving severe injuries through it. During the night of the 10th all the fires were drowned out, and on that night, or the morning of the 11th, the chief engineer reported to the master that he had done all that was possible and could do nothing more, and that the water was all over the stokehole and engine-room. The master then ordered every hand to bale, and one deck pump was fitted to No. 2 hold and worked. During the nights of the 9th and 10th three of the boats were smashed by seas falling on them, and the fourth was damaged; the steamer was filling fast with water, and on the morning of the 13th the deck of the vessel was nearly level with the sea. The carpenter, who had been in the vessel for three years, stated that it had been his practice to sound the wells morning and evening in fine weather, and if the weather was at all boisterous, every four hours; that he never found any water in the vessel at any time

except 2″ or 3″, until she encountered the second cyclone; that between 7 and 8 on the evening of the 8th he found no water in her; that he took soundings forward and aft on the morning of the 9th; that he did not think at that time there was any water abaft the engine-room, and none in the holds before the engine-room; and that he was unable to get any soundings aft in consequence of the water on deck until the 13th at 5 o'clock A.M., when he found 5′ of water on the top of the ballast tank on the starboard side; he also found the after ballast tank full. He next sounded aft at 10 A.M. and obtained 6′ 7″, but took no other soundings aft. He first got water in No. 1 hold about 8 o'clock in the morning of the 12th, and that was 2′; on sounding again in the evening between 4 and 6 o'clock he found 2′ 10″ of water on the starboard side; on the 13th, at about 9 A.M., he found 5′; he sounded again before he left the vessel and found between 6′ and 7′. He could take no soundings in No. 2 hold on account of the seas dashing on board until the morning of the 12th, between 8 and 10, when the pump was fixed and found to draw well. He took a sounding through the pump between 1 and 2 P.M., and got 4′ of water; he took another sounding on the morning of the 13th and discovered that the water had gained, and, as far as he could tell, there were 5′ or 6′. He first got 4′ of water in the fore ballast tank between 8 and 10 A.M. of the 13th; there was no water there on the previous evening. He sounded the tank again between 10 and 11 A.M. on the 13th and found 6′; he got no water at any time in the forepeak, and he reported all the soundings he took to the master and chief engineer. He went down into the stokehole and engine-room and other parts of the steamer and tried to find where the water was coming in, but did not succeed. The master, the first officer, and the chief engineer all stated that no water got into the vessel from the decks, and they could not discover from where the water came in. The master stated that when he saw that baling was useless, he turned his attention to the only boat which was on board the *Seraglio,* and which had been partially damaged. He and the carpenter repaired it as well as they could, and after putting such provisions as they could into the boat, and a little water which the crew got with difficulty from the water tank, the pump of which was almost under water, he and his crew got into the boat, having done all in their power to save the steamer. At noon of the 13th, when about 350 miles to the westward of Bombay, the men abandoned the *Seraglio,* having also taken with them in the boat a sextant, some nautical instruments, a little oil, 6 blue-lights, and a piece of a chart of the coast of Bombay, and arrived safely at the Apollo bandar, in that port, at 10 o'clock in the morning of the 17th June, having endured great privations in the boat. The master alleged that the last he saw of the *Seraglio* was nearly an hour and a half after the boat left her; she was then lying on her beam ends, and was entirely heeled down on her port side. Every effort was made to save the vessel, and the master stated that his crew behaved splendidly and carried out his orders promptly. The master was of opinion that the steamer might have strained herself through her midship section being empty, and when she rose to take a sea one half of the after part of the deck was submerged up to the top of the saloon house, and lifting that quantity of water might have strained her very considerably; or when the rudder got adrift the tremendous working of it might have started some of the rivets about the sternpost, or, as her overhang was very long and fine, longer than the usual run of cargo steamers, when she came down with her counter with tremendous force, it caused the whole vessel to vibrate, and might have started the rivets by the hood ends. He farther considered that in consequence of the athwart ship coal bunker being empty, and the two after coal bunkers nearly empty, there would have been strain enough in that part of the vessel during the weather the *Seraglio* encountered to have started her rivets, and that probably they would have started about the turn of the bilge, as the greatest strain would be there when the vessel was rolling; the

pitching would also have some effect and might have started the rivets in the flat of the steamer's bottom, as a vessel of her length, *viz.*, 275′ was frequently resting upon two seas. The chief engineer was of opinion that there was a very great strain on the vessel amidships because she had her athwart ship coal bunker entirely empty. After a careful consideration of the evidence, the Court were of opinion that the loss of the steam-ship *Seraglio* on the 13th June, when she was some 350 miles to the westward of Bombay, was caused in consequence of her having made more water in her engine and stokehole compartments than the engines and the crew were able to discharge. From the evidence it appeared that the *Seraglio,* after meeting a cyclone on the 2nd of June, up to the abandonment of the vessel on the 13th, made no water from her deck; all the hatches, ventilators, skylights, doors, &c., were properly secured and received no damage. She had two water-ballast tanks which had no communication with the holds, and four water-tight bulkheads which divided the steamer into four water-tight compartments; three of them had sluices, and one was closed with a water-tight tunnel door; and there were communicating pipes with all those six places from the engine-room. The water seemed to be gaining in the vessel during the 9th only in the engine and stokehole compartments, but there was no evidence forthcoming as to where that water came from. The engines were unable to reduce it, and it seemed to have gradually gained upon them until the fires were extinguished. The Court considered that the engineers might have got the donkey boiler on deck applied to the donkey pump, when they would have been able to have connected the donkey with the pumps, which might have kept the water down and enabled them to have kept the fires lighted in the main boilers, and that they might also have secured the stokehole plates after they had been first displaced by the water. The Court merely considered it was probable that the vessel had strained herself in the engine-room section, and had there taken in water. The Court observed that it was very extraordinary that the water should have got into the ballast tanks and the two forward holds, and considered it probable that it might have got there in consequence of the communicating pipes from the engine-room having been damaged during the bad weather. The Court were of opinion that the master deserved much credit for the manner in which he managed his vessel during the *two* cyclones he encountered, and that he and his officers were deserving of very great credit for the way they conducted themselves, and for saving all hands in one boat and in bringing them a distance of about 350 miles through a boisterous sea safely to the port of Bombay.]

42. The British iron screw steamer WILLINGALE [of London, 1,312 tons register, official number 89515, new vessel, age one year, schooner-rigged, classed at Lloyds 100 A1], from Vizagapatam to Boston (United States) with a cargo of 2,395 tons jaggery and castor-oil seeds. The steamer left Vizagapatam on the 23rd May with 27,255 bags of jaggery, and completed her loading at Cocanada with 5,464 bags of castor-oil seeds, leaving that port on the 26th for Boston. On the night of the 28th she was steaming quite slow on the S.E. ½ S. course, the weather was fine, but a little hazy; there was a light breeze, and the sea was very smooth, from the N.E. The *Willingale* appeared to have been nominally in charge of the first officer as the master was lying ill in bed, and really it was the second officer's watch. At 11 o'clock that night, owing to wrong soundings being given in the dark, the vessel grounded on the northern edge of the Armogham shoals (Coromandel coast); she came off within three quarters of an hour, but owing to the engines being worked only half speed in consequence of the tubes of the condenser being choked with sand, she took the ground again. At high water early the next day she steamed off the shoal without assistance, after having been ashore for five hours, and put into Madras the same evening. On the 30th her hull was examined by the Surveyors to the

port and her bottom was inspected by Government divers, and as neither of them discovered any damage, it was not considered expedient to detain her for a Court of Inquiry, as she was fully laden, and detention would therefore lead to unnecessary expenses; the steamer left Madras that same day with everything in first rate order. She called at Colombo, where after coaling she proceeded on her voyage to Boston. After passing through the One and Half Degree channel, a course was shaped for Cape Guardafui. The steamer whilst proceeding across the Arabian sea experienced a very heavy monsoon, but no damage was done to either the vessel or the cargo, and all went well with her up to the 20th June. At 1 P.M. on that day land was sighted abeam a good bit to the southward of Cape Guardafui, but the second officer did not recollect what the position of the vessel was. The average speed of the steamer was reckoned at 8½ knots an hour, and after proceeding up the African coast for two hours, Rás Hafún was visible at a distance of 10 miles; the weather was then fine, with the wind light from the southward. She steered along the land with all sails set. At sundown a thick haze prevailed over the horizon, but it was clear up to midnight, when it became a little hazy again. The second officer alleged that he never too kany sights for observation except now and then on a Sunday, because the master did all the navigation of the vessel. The second officer went on watch that night at 6 o'clock and received the course from the master of N. by E., which course was maintained up to 8 P.M. He stated that the night between 6 and 8 P.M. was fine but a little hazy, the wind was moderate from the S.S.W., with a heavy sea running, the land at that time being indistinctly visible. The first officer went on watch at 8 o'clock, and the master followed him on deck immediately, and a few minutes afterwards the master ordered him to furl all the square sails as the wind was getting light, and would probably fall calm after rounding Cape Guardafui. At midnight the second officer relieved the first officer, the course being then N. ½ E., and at half past one A.M. the following day it was altered to N. ½ W. The master was on deck off and on all that night. When the second officer went forward at 1 o'clock that morning very high land was in sight just abeam, and the deep-sea line and the hand lead were ready for use in the wheel-house. The course N. ½ W. was steered until the disaster happened. There was a look-out forward on the hurricane deck, there being no forecastle head, one man at the wheel and another about the decks, and the second officer on the bridge with the master. The lead was not hove at all that night, but the master had ordered to have it ready for heaving. Under ordinary circumstances the vessel steamed at the rate of about 8 knots per hour. The chief engineer said that, after knocking off watch at midnight of the 20th, there was a heavy sea running but not much wind, and it appeared to be a fine night; the stars were plainly visible, and the land was sighted ahead from the port bow. At 1-55 A.M. the second officer saw what he thought was a phosphorescent line broad on the port bow, and reported it to the master, who was on deck. The master went forward at once and after looking at it instantly ordered the helm to be put hard-a-port, and sheanswered her helm only a point and a half, but not in time to avoid the rocky beach, upon which she struck heavily in a few minutes. At about 2 o'clock the *Willingale* unfortunately stranded 4 miles to the northward of Rás Shenarief, about one-third of a mile from the beach, in latitude 11° 45′ N., longitude 51° 14′ E. (N.E. coast of Africa). No orders, it seemed, were given by the master to ease the engines or as regards the lead. The steamer after the disaster ran up on the beach as far as the engine-room, heavy breakers immediately breaking over the vessel fore and aft. The engine-roomfires were put out, the gauge glasses smashed, and all the lights extinguished. The third engineer then tightened the throttle valve to prevent explosion, and went on deck, leaving the engines going ahead slow; he returned in a few minutes, and after shutting the stop-valves

of the boilers, assisted the men in getting the boats ready. The master seeing that nothing could be done to save the steamer, and that the only chance of saving life was to take to the boats, at once ordered all hands to man the life-boats. The first officer was awoke by feeling the vessel striking, and immediately ran on deck, and before he reached the bridge a heavy sea dashed over the starboard side, breaking right over the boats and bridge. Whilst the three boats were being got out they were broken by the heavy sea. Shortly afterwards the life-boat—the only one left—was put out, but filled with water several times and carried away the goose neck of the upper block at the foremost fall. Eventually it was swung out clear of the steamer by aid of the after tackle, then the fall being cut by one of the crew, it dropped overboard. The master thereupon called for volunteers to try and get a line passed from the vessel to the shore, when the second officer and three seamen got into it, but the attempt was unsuccessful, the boat being stove in. The third engineer and a Maltese seaman then jumped overboard to take a line ashore, but failed owing to the numerous eddies. After they were hauled on board, the Maltese seaman volunteered and got into one of the boats which were smashed, and endeavoured to drift to the beach for the purpose of establishing communication with the shore, but failed, and returned on board. The men tried to fly a kite on shore, but also failed. The boat being full of water the first sea capsized her, and two of the crew got on top and remained fast to it, whence at dawn they got ashore; the second officer and two seamen struck out for the shore, which they afterwards reached in a very exhausted condition, one seaman being drowned. When the first officer rushed on the bridge he asked the master what was the cause of the steamer going ashore. He was told that the master could not see the low land, and had mistaken a ridge some 2 miles from the beach for the coast. The chief engineer stated that he was asleep, and awoke when he felt her strike the ground; he at once went on the bridge and helped the men in getting the boats out. He positively stated that at that time he saw the loom of the land about one-third of a mile distant, but the land was not visible till daybreak; it was a rocky beach, and the surf was running strong on the port beam. When the vessel struck the ground the wind was right aft, and all the witnesses swore that no sound of the surf or breakers was heard. The crew had soon to leave the bridge, being in danger of getting killed or washed overboard, and consequently took shelter on the main deck, the lee side of the fiddley. At daylight when it became clear, the rocky coast line was sighted about 150 yards from the wreck, and the jaggery was all washing out through holes in her bottom, colouring the water. An able seaman stated that he was on the look-out forward on the hurricane deck at 2 o'clock on the morning of the 21st. He alleged that there was then no land in sight but Cape Guardafui, which was on the vessel's port quarter. He stated that there was a sort of mist hanging over the coast, but that the night was fine and clear, only hazy towards the horizon. At 45 minutes past one o'clock that morning he saw right ahead, on both bows, a line of light coloured water; it appeared to be like a shoal of fish, but did not report it to the master, considering it unnecessary. At 7 A.M. a large number of Somalis swam off to the steamer and offered to take a line ashore if paid for it, but after staying on board for a quarter of an hour, they suddenly left without assigning any cause for not taking the line. At 9 A.M. the seas were making clean breaches right over the vessel, and all the hatches were burst in. Immediately afterwards the steamer broke in two with a loud crash, just abaft the engine-room. At this time a portion of the crew rushed to the after end and others to the fore end of the vessel, and after securing hatches and pieces of wreckage, they dropped into the water to make the best of their way ashore, and soon afterwards the after end was broken up. Twelve men (the master, the second engineer, the boatswain, the steward, the

cook, the donkeyman, an able seaman, 4 firemen, and the engineer's boy) got very near the beach, but were washed back and drowned, and only 7 safely reached the shore. The beach was covered with Somalis, and there were also large numbers in the water, who were busy plundering, and all armed to the teeth. The men were thirsty, but could get no water, so they went and looked for it nearly 3 miles along the beach unsuccessfully; when they returned a native sent them a boy, who took them some 5 miles inland, where they refreshed themselves and slept under a tree. At dusk they entered a village, whence they each obtained a handful of seed from the women, and slept on the sands at the end of the village at night. The survivors were almost in a naked state, and some suffered with great cuts and bruises caused by the rocks whilst landing. The following day at sundown the men got a few beans to eat, and the third day a little boiled rice. On the afternoon of the 24th, as the water was very bad at the place where they first landed, they were taken by a kind Arab—who gave them some white sheeting to cover their heads and bodies—to a village on the coast about 9 miles off, whence they embarked in a dhow to Rás Alúleh, where they remained till the 20th July, during which time the chief of the place fed them, but very indifferently; and were it not for the kindness of the nakhoda, Saleh Bin Matar, who treated them with bread and butter nearly every morning, some of the men would have died. The villagers were very civil, and wanted to house them, but the chief objected, and consequently they lay on the beach day and night. The shipwrecked men often asked the chief to give them a boat, as there were numbers of vessels passing almost daily, but he seemed inclined to detain the men. Ultimately, on the 11th July, after great persuasion, they obtained a boat, when the first officer and 3 seamen got in it and put out to sea. On the 15th they were picked up by the steam-ship *Dilsberg,* after knocking about for 4 days without food or water, and landed at Perim harbour. Earnest entreaties of the first officer to rescue the remaining 8 men who were left behind at Rás Alúleh were disregarded by the master of the *Dilsberg*. The Assistant Political Resident, Perim Division, immediately on receiving notice of the wreck, telegraphed to Aden, when H.M.S. *Sphinx* was despatched to rescue the men. On the 20th the 8 men (including the second officer and the chief engineer) thus saved, after enduring considerable hardship and exposure to the sun, left in the *Sphinx* for Aden, where they arrived safely on the following day. Original value of steamer *Willingale,* £36,240; cargo, £15,842. The crew 24 men; 12 lives lost.

[A Marine Court of Inquiry was held at Steamer Point in the Court of the Resident, Aden, on the 27th, 28th, and 29th July, by the Political Resident and Sessions Judge, under the provisions of section 8 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances attending the stranding and subsequent loss of the above steamer. The Court on the 26th recorded that it appeared that this investigation was likely to involve the consideration of the question as to the cancellation or suspension of a certificate; it was therefore necessary for the Court, under section 13 of the above Act, to appoint an assessor. They consequently adjourned for the purpose till the 27th. On the Court assembling they appointed a person conversant with maritime affairs as their assessor. They thereupon ordered the trial to proceed, and on conclusion of the evidence the Court directed the parties to withdraw in order that they might consider their finding. From the evidence before the Court, it appeared that the steamer *Willingale* loaded about 2,000 tons of jaggery at Vizagapatam and 400 tons of castor-oil seeds at Cocanada, and after proceeding on her voyage, grounded on the Armogham shoals, about 55 miles North of Madras, where she remained on shore for 5 hours. She called at Madras and had her bottom examined by divers, and was pronounced uninjured, the condenser tubes only being found to be choked with sand. The engines were taken to pieces

and all defects made good, when the steamer left Madras on the 30th May in perfect order, she not having made any water. The vessel next coaled at Colombo, and afterwards proceeded on her voyage to Boston through the One and Half Degree channel, intending to make the land in the vicinity of Cape Guardafui, and at noon of the 20th June the land was made, but well South of the Cape. There was no evidence to show the position of the steamer at noon on the 20th, and she was steered along the land at a safe distance until midnight; it was at that time clear overhead, with the stars shining brightly, hazy on the horizon, not much wind, but a good sea right aft. The course steered between 6 and 8 o'clock that night, *viz.*, N. by E., would have been a safe course 10 miles distance from the land until Cape Guardafui was abeam; between 6 and 8 P.M. the land was seen, but indistinctly. The second officer on relieving the deck at midnight got a N.½ E. course from the first officer, but at 15 minutes past one o'clock on the morning of the 21st the course was altered to N.½ W., with high land visible just abeam, and which land was evidently Rás Shenarief, but had been mistaken for Cape Guardafui; 40 minutes afterwards the *Willingale* struck, showing that she could not have been more than a mile from the land when the course was altered at 1-15 A.M. The deep-sea lead was never used; had it been used the soundings would have warned the master that he was much too close to the land on such a night, with the haze so low down. There were only three men in a watch on deck exclusive of the officer of the watch, and with a little management a cast of the deep-sea lead could have been taken and soundings got within a reasonable time in anything less than 50 fathoms. The Court recorded that the assessor was of opinion that the *Willingale* was lost by the master having mistaken Rás Shenarief for Cape Guardafui, and that when he altered the course he had no idea that he was so near the land. The dreadful loss of life again called strongly for a light on Cape Guardafui. The Court, after a careful consideration of the evidence, were of opinion that the steamer *Willingale;* at the time she was lost, was in good order and condition; that she was lost on the 21st June about 3 A.M., evidently through her master having mistaken Rás Shenarief for Cape Guardafui, and through his not having made use of the lead; that on account of the heavy sea she broke up within 7 hours, her boats having been destroyed and rendered unserviceable; that no means were available for getting a line on shore; that had communication been established between the vessel and the shore the loss of 12 lives would not have occurred. The Court observed that the master, who was drowned, was in charge of the deck, and had been there for some time before the steamer went on shore; he appeared to have realized the danger he was in when it was too late, and as he gave the order to put the helm hard-a-port, the vessel answered her helm and went round a point and a half, when she struck the rocks. Immediately after the disaster happened the sea broke clean over her, destroying the weather boats and putting out the lights in the engine-room, and filling the lee boats with water, thereby preventing them from being successfully launched. They were ultimately rendered useless by being stove in. The survivors, although not actually ill-treated by the Natives, suffered much from exposure to the sun and from their almost naked state. The first officer and 3 of the crew got a native boat put off from Rás Alúleh, and on the fourth day were picked up by the steamer *Dilsberg,* which called in at Perim harbour and gave notice of the wreck. That notice having been telegraphed to Aden, H.M.S. *Sphinx* was immediately despatched to Rás Alúleh and rescued the survivors, 8 in number, who had been a month living with the Natives. The loss of life was greatly to be deplored; the Court desired to bring strongly to notice the great necessity for a light being erected on Cape Guardafui, in the vicinity of which more wrecks occurred than at any other place in the neighbourhood. The Court, therefore, could not blame the second officer for the

apparent neglect of duty in not heaving the lead when approaching the land, but blamed the master, who with 11 lives were apparently lost in consequence.]

The Governor of Bombay in reviewing the Court's proceedings remarked that they had concluded their report as follows: "The loss of life (12 persons) is greatly to be deplored, and the Court begs to bring strongly to notice the great necessity for a light being erected on Cape Guardafui, in the vicinity of which more wrecks occur than at any other place in the neighbourhood." The Governor of Bombay recorded that the desirability of erecting a light at or near Cape Guardafui would, therefore, again be brought to the notice of the Government of India.

AUGUST.

43. The French iron ship CECILE MARIE [of Nantes, 446 tons register, official number not reported, age 18 years, classed at Veritas 3/3 L.I.I.], from Calcutta to Réunion with a full cargo of rice and hog's-lard and 3 shipwrecked men of the barque *Patrie* as passengers. The ship left Garden Reach early on the morning of the 3rd August, under charge of a pilot and in tow of the steam-tug *Columbus*, and proceeded safely down the Hooghly river and anchored for the night at Saugor. At 8·30 A.M. on the 4th she weighed anchor and proceeded to sea. She passed the Eastern Channel light-ship and discharged her pilot at 7 P.M., and early the next morning (the 5th) was caught in a cyclone and suddenly struck by a S.E. squall 15 miles to the southward of the Eastern Channel light-ship, Sandheads, and before the crew could reduce canvas the barque capsized so suddenly that there was no possibility of getting out the boats. She immediately filled with water and foundered, the master and the crew of 12 hands, with 3 passengers, jumped into the water and kept themselves afloat as best they could by means of the wreckage, excepting the first officer, the cook and two seamen, who seemed to have gone down with the vessel. At daybreak of the following morning (the 6th) the master, despairing of assistance, and preferring a speedy end to incalculably long misery, committed suicide by jumping off the wreckage sustaining him and disappeared, previous to which 7 men and one of the passengers had been washed from the wreckage supporting them. At 11 A.M. that same day, when 25 miles to the southward of the Eastern Channel light-ship, the ship *Falconhurst*, which vessel left Calcutta for Sharpness a day after the *Cécile Marie*, passed a man floating on a ladder. The master immediately rounded to, lowered a boat, and picked him up after having been two days and two nights on the wreckage; she afterwards filled away and proceeded until noon, when another man was sighted floating on a door, and 4 men on a portion of the long-boat some distance to leeward. After rescuing these, too, the master stood to the N.W. until 1-15 P.M., when another man was sighted floating on a settee, who was also picked up. From the time of rescuing the first man until the *Falconhurst* returned to the Sandheads, the master had a man stationed at the mast head with a pair of powerful glasses, but saw no other than those she picked up. The survivors were transferred to the Pilot brig *Coleroon* at 5-15 P.M. that same evening, after which the *Falconhurst* proceeded on her voyage. The master of the *Falconhurst* received the thanks of His Excellency the Minister of Marine, Paris, as also from the Lieutenant-Governor of Bengal, in acknowledgment of the energy, humanity, and kindness displayed by him in saving the lives of 7 persons (2 passengers and 5 of the crew of the *Cécile Marie*, which vessel foundered at the Sandheads.) The rescued men were in a state of great exhaustion, having been at sea on floating wreckage for two days and two nights. Original value of *Cécile Marie*, R59,200; cargo, R71,040. The crew 17 men, and 3 passengers; 2 passengers and 5 of the

crew were saved, and the master and the remaining 11 men and one passenger were drowned.

[A Court of Inquiry was held in the office of the Consul-General for France, Calcutta, on the 10th August, by the French Chancellor, for the purpose of investigating the circumstances which led to the foundering of the above vessel at the Sandheads. The Chancellor recorded that from the evidence of the two passengers (shipwrecked men of the barque *Patrie,* and 5 seamen of the *Cécile Marie*, it appeared that the barque left Calcutta, having a full cargo of rice, for Réunion on the 3rd August in charge of a pilot, and proceeded down the Hooghly river clear of the channels, and on the following evening, the pilot left her off the Sandheads. The master at 1 A.M. on the 5th had all the sails set, with the exception of the royals and flying jib. There was then one man at the wheel, a look-out at the forecastle head, and another about the decks. The weather was hazy with light wind to N.E., and later on it changed to S.E., blowing not very strong, accompanied with lightning and rain. At 3 A.M. the *CécileMarie* was suddenly struck by a violent squall from the S.E., and the vessel was immediately covered with water. The master thereupon ordered the helm to be put hard up and the sails trimmed, which was done as well as possible under the circumstances, because with the strong wind it was most difficult to carry out. The master afterwards let go the port anchor and paid out all the chain there was on board for the purpose of raising up the port side as far as practicable, but finding that no good result was obtained, he in consultation with the officers and crew decided to take to the boats. Accordingly the boats were lowered, but immediately the long-boat touched the water it was broken in two by the heavy sea. Shortly afterwards, whilst another boat was being slung out, the *Cécile Marie* heeled over to port and went down bows first. At that time 13 of the crew and 3 passengers (sailors from the wrecked barque *Patrie)* saved themselves as best they could on pieces of the floating wreckage, but the first officer, the cook, and 2 seamen who were hanging on to the masts, went down with the vessel. The men kept themselves afloat by means of the wreckage, and were in sight of each other, but during the night they were separated. After enduring great sufferings and privations for two days and two nights on the wreckage, they were picked up, 7 in number, by the ship *Falconhurst,* which vessel had left Calcutta a day later, and safely transferred to the Pilot brig *Coleroon.* The Chancellor was of opinion that the foundering of the *Cécile Marie* off the Sandheads on the 5th August was due to heavy weather the barque had encountered on her voyage from Calcutta towards Réunion.]

44. The British Indian padow ALLEE [of Bombay, 14 tons register, official number 669, age 60 years], from Trombay to Bombay with a cargo of salt. On the 9th August the padow left Trombay fully laden with salt for transhipment to the ship *Benares.* At 1 P.M., when as far down as Green Island, Bombay harbour, she was struck by a sudden squall, which caused a heavy sea to rise and wash into the padow, thus filling her in a few minutes. The crew set to work to bale the water out, but she soon sank. Loss, value of padow, ₹1,000; cargo, ₹550. The crew saved themselves by swimming ashore to Green Island.

45. The Native ganja KALLIAN PUSSA [of Cutch Mándvi, 100 tons register, official number unknown, about 3 months old], from Calicut to Cutch Mándvi with a cargo of teak timber and coir rope, valued at ₹10,000. The ganja, it appeared, sailed from Calicut on the 1st August, and when off Mount Delly (Malabár coast) encountered bad weather, with very heavy sea and much rain; the sails were blown to pieces, and to keep her afloat a part of the cargo had to be thrown overboard; the next day the storm abated. About ten days after this (the 11th August) they met with another storm; the wind and

sea were very high and the sun totally obscured. The muchwa was quite uncontrollable; she drifted about at the mercy of the wind and sea, when at 5-30 P.M. she was struck by a sudden squall which capsized her; the crew then abandoned her and took to the boats, and after undergoing great privations in a tiny weather-beaten boat, they were picked up and safely landed at Bombay. The water-logged muchwa appeared to have drifted about for over a month, and eventually stranded two miles south of the port of Munjeshwar, where she broke up. Several attempts were made by the authorities at that port to float her, but failed owing to the stormy weather of the monsoon and also to the want of heavy anchors. For 4 days the men existed in the little boat in cramped positions, and exposed to the rays of a terrible sun, with a meagre supply of food. Loss, value of muchwa, ₹5,000; a considerable portion of the cargo was lost before she stranded on the coast, but all that remained in the muchwa were saved. The crew, 15 men, were all saved.

46. The Native wooden ganja LAXUMEEPERSAD [of Cutch Mándvi, 145 tons register, official number 1498, age 15 years], from Cutch Mándvi to Calicut in ballast. On the 13th August, the ganja met with stormy weather when off the port of Málvan (Bombay coast), and became unmanageable. At 11 P.M. the tindal dropped two anchors, and the ganja having sprung a leak, the crew began baling the water out, but unsuccessfully. At 1 A.M. on the 14th she parted from her cables, and was driven on to the rocks to the southward of Melúndi or Sindúdrúg fort and broke up. Loss, value of ganja, ₹18,000. No cargo on board. The crew, 18 men; one life lost.

47. The Native ganja HOLA [of Cutch Mándvi, 50 tons register, official number 4082, age 6 years], from Dwárka to Calicut in ballast. On the 15th August the ganja met with stormy weather, and having lost her main sail became unmanageable; at 9 P.M., when off the port of Jaygad, the tindal determined to run in for shelter; he accordingly steered a course, but instead of passing through the entrance to the Sávitri river (Bombay coast), he ran the ganja on the adjacent sandbank, whence she soon afterwards broke up. Loss, value of ganja, ₹5,000. No cargo on board. The crew, 9 men, were saved by clinging on to pieces of the wreck, which drifted ashore at high water.

48. The British Indian gulbut ALIMADAT [of Surat, 16 tons register, official number 3318, age 15 years], from Bhávnagar to Surat with a cargo of cotton and ₹1,000 in cash. At about 10 P.M. on the 17th August, when about 9 miles off the village of Suváli, in the Gulf of Cambay, she met with stormy weather, and having shipped much water, foundered before any effectual help could reach her. Loss, value of gulbut, ₹4,000; cargo, ₹4,000. The crew, 8 men, were saved on pieces of the wreck which drifted ashore.

49. The British iron ship BRITISH STATESMAN [of Liverpool, 1,262 tons register, official number 55087, age 17 years, classed at Lloyds *A1], from Calcutta to Demerara with a cargo of rice. About 5½ months prior to her leaving Liverpool for Calcutta the *British Statesman* was specially examined by the Surveyors to the Society of Lloyds at that port as to her seaworthiness and general equipments. They reported that after a careful examination they found that the ship was in a good and efficient state, and fit to carry dry and perishable cargoes to and from all parts of the world, and that she had been classed and entered in the Register book of that Society with the character *AA1 subject to periodical survey. She arrived at Calcutta on the 8th June, and left port about the middle of August in a perfectly seaworthy condition. The vessel, on the morning of the 14th August, was taken out of No. 4 Esplanade moorings under charge of an assistant harbour master and transported to Garden Reach, where she was anchored, and at 9 P.M. that day he made over charge to the pilot. She was loaded with a full cargo of rice on owner's account, and was ready to proceed to sea the following morning in tow of the steam-tug *Challenge*.

The next day (the 15th) the vessel proceeded down the Hooghly river in tow as far as Kedegree, where she anchored for the night; on the following day (the 16th) at 6-30 P.M. the pilot left her off the Sandheads, and half an hour afterwards the tug cast her off, the Eastern Channel light-ship bearing North, about 6 miles distant; the weather being then moderate, wind from W.S.W., a 5 to 6 knot breeze. After leaving Saugor there was a heavy rolling swell, but not much wind, the breeze being moderate with every appearance of worse weather; the barometer low, standing at 29·45. The crew made sail to topsails, foresail, the lower staysails, the outer and the inner jib, and the master set the course; an hour afterwards the fore and maintopgallant sails were set. At 10 P.M., the wind being very unsteady in force, with a heavy head sea, the outer jib was ordered to be furled. At 12 o'clock that night, owing to sharp squalls from the W.S.W., the foretopgallant sail was taken in, and at 2 o'clock on the 17th the vessel was heading about S. ½ E., and the head sea becoming heavier, at times the maintopgallant sail was lowered. At 4 A.M. the first officer went on watch, at which time there was a strong breeze from W.S.W. with squalls from West. At 7-30 A.M. the upper mizentopsail was lowered, and the master, who was on deck the whole night, then left the poop for a few minutes, and when he came at 7-55 A.M. the first officer reported a squall on th eweather beam from West to W.N.W. It was raining heavily all the time, and everything was obscured until the squall was close to her, whereupon the master gave orders to luff, and the ship came up to S.W., but immediately afterwards was struck by a very heavy sea on the lee bow, smashing in the forward house, filling her decks up to the lee combings of the hatchways and heeling her over to port, carrying away the port quarter boat which was hanging to the davits. This was followed by a second sea before she had time to recover herself which samshed in the lee side of the after-house and the lee side of the cabin, when the master ordered the main and foretopsail halyards and the lower topsail sheets to be let go; the yards came down, but the sheets scarcelys tarted; this manœuvre did not right her. In this extremity the master ordered the masts to be cut away, but as the carpenter's tools had all been washed overboard, it was impossible to carry out that order. Some of the men tried to cut the weather halyards, but there was no time for doing so; the house was gutted clear out. The first officer tried to fetch an axe from his room, but the wreckage in front of his door prevented his getting it, and as the sea still continued to break over the vessel, she settled down on her beam ends. At that time the master and the first officer felt a heavy thud as if the cargo was shifting, when the master ordered the crew to clear away the boats, and that all hands should secure their safety as best they could by getting into them, which some of them managed to do. Just then a loud report was heard, when one of the deadlights blew out on the weather side from the force of compressed air in her, and without further warning the *British Statesman* turned over keel up and foundered, with all hands on board, about 45 miles to the southward of the Eastern Channel light-ship, Sandheads (Bay of Bengal). It occupied only three minutes from the time the first sea struck her until she went down; some of the crew had leaped into the sea before she turned over, and some rose to the surface after the vessel sank. The first officer was carried down four times by the suction, and when he came up to the surface he was washed on top of a boat floating bottom up a few yards off. Just then he heard the master shout, "Drake, here I am;" he looked in the direction from which the voice came and saw him, but was unable to render any help as he was whirling in an eddy-tide and struggling hard to get free, and soon after disappeared. The third officer and two men were on the bottom of a boat to windward of the first officer, and three other men in a boat to leeward; this latter boat was hailed to by the first officer to come and take him off, but her head was put before the wind and she soon drifted out of

sight. The first officer, after knocking about on the bottom of that boat for a couple of hours, was taken off by the sailmaker's boat, which was to windward. At noon after a hard pull they succeeded in reaching the third officer's boat; the men in it being in a very exhausted condition were picked up in the first officer's boat; there being a strong breeze at the time, the oars were put up to act as a sail, and the boat kept away before the wind and sea. At 2 P.M. the French barque *Veteran,* which was bound from Calcutta to Bourbon, bore down on the boat and picked up 6 men (the first and third officers, the sailmaker, two able-bodied seamen and an ordinary seaman); the *Veteran* then filled her main yard and stood on the starboard tack for half an hour, when the master had recourse to the telescope, and thinking that he saw a boat from the masthead, kept her away before the wind and ran 3 miles to leeward, but was unable to find anything. She then hauled on the port tack and cruised round the spot where the *British Statesman* went down, but saw nothing of the survivors, and at 4-30 P.M. the *Veteran* steered for the Pilots' station. On the morning of the 18th the shipwrecked men were transferred to the Pilot brig *Coleroon,* and at 9 P.M. that same day placed on board the steamer *Ganges,* whence they were safely landed at Calcutta. On the 20th the Indian Government steamer *Undaunted* proceeded to sea to ascertain whether there was any trace of the missing men, and found 5 seamen and one apprentice on board the *Matla* light-ship. These men, it seemed, had got into a boat and were drifting for two days and two nights, when on passing the light-ship they were taken on board, after undergoing great privation in their efforts to reach land. Original value of *British Statesman,* £25,000; cargo, £16,500. The crew 29 men; 17 lives lost.

[A Marine Court of Inquiry was held in the office of the Port Officer, Calcutta, on the 27th and 28th August and 8th September, by the Officiating Chief Presidency Magistrate, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances connected with the foundering of the above vessel some 45 miles to the southward of the Eastern Channel light-ship. The Court recorded that the papers received with the Resolution of Government appointing the Court, as also the written report of the catastrophe by the first officer, were read and filed, after which the Government Prosecutor opened the case by stating that the whole matter would develope when the witnesses were called. The Court, after taking the evidence of the assistant harbour master, the pilot, and the first officer of the vessel, adjourned for the trial until the 28th. On the Court re-assembling on that day, the foreman stevedore, the third officer, the sailmaker, and an able seaman were called and examined. The Counsel on behalf of the owners then recalled the first officer and got him to explain in the diagram the actual loading of his vessel, and also to make certain corrections on it, which he did. Counsel then addressed the Court at some length, after which they adjourned to consider their decision. The Court recorded that the ship *British Statesman,* loaded with a cargo consisting of 22,500 bags of rice, left Calcutta in tow of the steamer *Challenge* on the morning of the 15th August in pilotage charge, and had on board, besides the master, a crew of 28 European seamen. On the evening of that day the vessel anchored at Kedgeree, but weighed anchor the next morning and proceeded in tow of the tug to sea. After leaving Saugor she encountered squally weather with a heavy head sea, which continued until 6-30 P.M., when the pilot left. At 7 P.M., when the tug cast her off, the Eastern Channel light-ship was bearing North, distant 6 miles; she then made sail and proceeded on her voyage. The weather was very squally during the night with a heavy head sea. At midnight the wind freshened and the seas became heavier, the foretopgallant sail was taken in, and at 2 A.M. of the 17th the maintopgallant sail and outer jib were taken in, the wind being then W.S.W. and the ship heading S. ½ E. She was under the three whole topsails, foresail, and jib. At

30 minutes past 7 o'clock that morning the master went below, having been on deck all night, at the same time the upper mizentopsail was taken in. Twenty-five minutes afterwards the master came on deck again, when the first officer reported a squall rising on the weather beam; it was raining hard at that time, and the squall came from the W.N.W. The master gave orders to luff, and the vessel came up to S.W., but almost immediately after that order was given a heavy sea broke over the lee bow, filling her decks up to the lee combings of the hatchways and heeling her over to port, carried away the port quarter boat and did some other damage. This was followed by a second sea which smashed in the forward house and the poop deck-house, when the vessel heeled over more and lay on her beam ends, with the water up to the mainmast. The master directed the topsail halyards and the topsail sheets to be let go, the halyards were belayed on the lee side, that side of the deck being under water; the halyards were then cut and the yards came down, but the topsail sheets would not start owing to her lying over so much. He then ordered the masts to be cut away, but the carpenter's tools had all been washed overboard; some men tried to cut the weather halyards, but there was no time for doing so. At that time the master and the first officer felt a heavy thud as if the cargo was shifting, when orders were given to cut away the boats and for the men to get on the outside of the ship, which some of them managed to do. A loud report was heard, when one of the dead lights blew out on the weather side from the force of the compressed air, and then the *British Statesman* turned over and went down with all hands on board. It took only three minutes from the time the first sea struck her until she went down, and some of the crew had leaped into the sea before she turned over, and some came to the surface after the vessel sank. Twelve of the crew were eventually saved by getting into boats of the sunken ship floating about, when after floating for some time they were picked up and landed at Calcutta. The Court were of opinion that there was not sufficient judgment shown in the way the cargo of rice was stowed in the lower hold and between the decks of the *British Statesman,* from the evidence before them of the stevedore, and also from the sketch put in of the stowage of the cargo, showing that the bags of rice were built up in steps from each end of the lower hold, leaving a distance of 5′ empty from the collision bulkhead on the fore part and the same distance from the sternpost in the after part. It was well known to all on board that the vessel was a crank ship. The cargo of rice stowed in bags, which were round on the top and flat at the bottom, would not make the same close and secure stowage as bags flat at each end. The system adopted of stepping the tiers of bags from each end in the lower hold in a sloping form was, the Court considered, not safe, as the whole of the lower tiers were depending for their secureness upon the upper tier jammed under the 'tween deck beams; the least settlement of those bags would loosen the hold the upper tier had against the beams. When that happened, all the tiers below would lose the support received from above, and whenever the vessel commenced to pitch heavily, which she afterwards did, the front bags of the upper tier would fetch away and pitch into the open space in front, the other front bags in the lower tiers would soon follow, and the same action would take place in the after part of the lower hold. There was no protection of any kind either forward or aft in the shape of planks tommed off from the beams or any rough bulkhead to prevent the cargo shifting at the two ends; nor was there anything in the evidence to show that the precaution had been taken of placing a few shifting boards under the upper beams fore and aft to prevent the cargo shifting towards the sides, as cargo stowed in the way this was would require such precaution. Moreover, it would have greatly added to the stiffness and stability of the ship had the whole of the lower hold been filled, and the trim of the vessel regulated by careful stowing in the

'tween decks by taking away the upper tiers under the upper deck beams and carrying the weight for trimming farther aft,—that is, should it be required to get the vessel by the stern. The Court observed that from what they could gather, the idea of stowing the cargo in that manner was adopted as an aid to ventilation, although the ship had more than sufficient ventilators through her decks for a rice cargo, and appeared to have had far too many ventilators through her deck to be safe for a deep-loaded ship ; those ventilators might have done for an emigrant vessel half-loaded and of light draught, but not for a ship heavily laden as the *British Statesman* was. Those ventilators eventually proved a source of danger to the vessel previously to her foundering. The Court were also of opinion that a grave error was committed when the ship was struck by the squall at 7-55 A.M. on the 17th by luffing her up to the wind. By the evidence it seemed that the squall rose on the weather beam ; that it was blowing hard at the time with a heavy head sea requiring the upper mizentopsail to be taken in. After the squall struck the vessel the master directed the man at the wheel to luff ; the ship came up to the wind, lying over to it. Seeing that this manœuvre would bring the vessel into a dangerous position, he directed the helm to be put hard up ; she would not answer it. He then ordered the helm to be put down again ; by that time the ship lay over heavily and would not steer. The vessel's head was up to S.W. bringing the heavy head sea, which had existed all the night previous, on the port bow; it was then that the first heavy sea broke on board over the lee bow, laying the vessel more over to port; the second sea soon after going over the lee beam caused the ship to fall over on her beam ends. When the master called the attention of the first officer to a heavy thud felt below, which they surmised was the cargo shifting, all hands were on the outside of the hull ; and just then one of the deadlights blew out from the side, when the vessel turned over and sank. The Court were of opinion that when the last squall was making down upon the vessel the helm ought to have been put hard-a-starboard, with the afteryards braced in and the the vessel kept off the wind, which would have brought the heavy sea on the weather bow and prevented heavy seas going on board. The danger of luffing the *British Statesman* up to the squall with such a heavy southerly swell was very great, as by doing so the sea would be brought on the lee beam, and the vessel lying over would expose the lee side of the deck to the whole force of the sea, which breaking on board would weigh the vessel down, hastening the foundering of the ship. There was not the slightest doubt that a great portion of the water on deck found its way through the ventilators into the 'tween decks and the hold, but the Court were under the impression that that was not the cause of the loss of the vessel. The Court observed that the evidence was very conflicting—a circumstance to be expected in the case of men placed in the position of the witnesses in a sinking vessel with only three minutes' time to take note of anything, and the prospect of immediate death staring them in the face. Still, from the statements of the third officer and the man who was at the wheel at the time when the squall struck the ship which laid her on her beam ends, the Court had not the least doubt that their evidence could be fully relied upon. After a careful consideration of all the evidence brought forward in this case, the Court attributed the loss of the ship *British Statesman,* in the first place, to the way in which the cargo was stowed, which made her so tender and did not give her the stability she would have had if the cargo had been stowed otherwise. In the second place, the foundering of the ship was partly due to the vessel having been luffed up to the wind, bringing the heavy sea on to her lee beam, causing the heavy southerly swell to fall upon her deck and roll her over: the cargo shifting facilitated the loss. The Court observed that the ship foundered 45 miles South of the Eastern Channel light-ship in three minutes after she was struck by the first sea.]

50. The British Indian wooden barqe EUROPA [of Bombay, of 437 tons register, official number 53549, age 36 years, no class], from Bandar 'Abbas to Calcutta with a cargo of salt and red ochre, valued at ₹25,000. On the 20th August the barque met with bad weather whilst working out of the Straits of Hormûz (Gulf of 'Omân), and being very old, with all dead-weight in her bottom, she strained very much and began to leak. The pumps were at once set on, and on examination of the after-hold on the following day it was found that the water was entering under the master's cabin in the after-hold about the sternpost. Attempts were made to stop the leak, but without success, and it was found to increase. On the morning of the 1st September there were 2′ 6″ of water in the hold, and although the pumps were kept constantly going the water had increased to 4′. On the 16th the vessel arrived off Bombay harbour; the Pilot schooner bore down in answer to the signals of distress, and the barque soon afterwards was towed up the harbour, where she was safely anchored. She was subsequently examined by the Surveyors to the port, and as the cost of repairs were too great and the vessel being very old and unseaworthy, she was abandoned as a total wreck. The barque was eventually broken up. Original value of *Europa,* ₹75,000; cargo worth ₹200 was damaged and lost; the remainder was saved. The crew 22 men. No lives lost.

51. The British iron screw steamer TUNA [of Napier, New Zealand, 165 tons register, no official number, age 3 months, schooner-rigged, not classed], from North Shields to Napier, New Zealand, in ballast. It appeared that the steamer was a new vessel; she was intended for a tug steamer, and was on her way to Port Napier, having left North Shields in ballast on the 8th July. The master was taking her to Port Napier on contract, intending to call at Malta, Port Said, Aden, and Point de Galle; and up to the time of arrival at Aden nothing unusual occurred. There were two certificated officers—the master and the first officer—and a crew of 11 men when the vessel left England; one man deserted at Port Said and another was landed at Aden; but before proceeding they were replaced by two natives shipped at Aden. It seemed that the master had such confidence in the working of his chronometer that he did not consider it necessary (notwithstanding that there was a difference of 14 miles) whilst at Aden, before proceeding on his voyage, to take any means of verifying its rate by cross-bearings of the light-ship, light-house, and other known objects on shore, but was satisfied with only taking sights with an artificial horizon. The vessel arrived at Aden on the 8th August, and after coaling left at 6 A.M. on the 10th and shaped a course for Cape Guardafui, which she reached two days afterwards; but having experienced very heavy weather, the master was compelled for six days constantly to run back under the lee of Cape Guardafui for shelter. On the 18th the vessel only made 5 miles in 12 hours. On the next day the steamer continued her course, but whilst off Rás Hafún, the master finding that the weather was increasing, with a high confused sea, he determined to put back to Aden until the S.W. monsoon had moderated. At 3-30 P.M. on the 20th the *Tuna* rounded Cape Guardafui and she was kept steering along the land till dusk. At 7-30 o'clock that night the master set the magnetic course West for Aden, but on account of the strong westerly winds, with heavy seas from the W.N.W., as also to the steamer being so very small—only drawing a little over 7′ of water—the master had to keep the vessel's bow to the sea in order to prevent her shipping large quantities of water and straining. The master had to alter the course a point, as he was obliged almost constantly to keep her head to sea and thus watch a chance, when it was a little smooth, to put her on the W. by N. course again. At sunrise on the 21st the sea came more southerly, and at 10 o'clock her head was more to the sea, and the course made between 10 A.M. and 5 P.M. was S.W. by W. ½ W. The vessel steered various courses from S.W. to W.N.W. Obser-

vations were taken every afternoon for the longitude and at noon for the latitude; the first officer took the sights and the master the time, and they afterwards worked them out separately and compared their results. The first officer alleged that at noon of the 21st the vessel's position was latitude 13° 08′ N.; the longitude was not remembered, but stated to have been either 46° 58′ E. or 47° 58′ E., and the position then laid down on the chart was some 180 miles distant from Aden. The master swore that at 4 o'clock the steamer's position by observation was latitude 13° 05′ N., distant about 180 miles eastward of Aden; but he stated that she was really nearer, as there was an error of 25 miles in his chronometer. At that time there was a strong westerly breeze with a heavy confused sea. After working out the vessel's position the master found a difference of at least 25 miles to the eastward in the longitude, whereas the distance from Aden actually was 155 at 4 P.M. At noon the first officer relieved the master on the bridge and received the course S.W. by W. ½ W. About half past 4 P.M. that same day the first officer stated that he sighted a light, which bore N. by W., distant 40 miles, but he did not report it to the master. The sea at that time was from W.S.W. with decreasing wind, and the weather apparently clear. An hour afterwards the sea moderated a little, and she kept her W. by N. course again, which was continued up to the time the vessel ran ashore. No orders were given by the master to ease the engines or regarding the lead. The master went on watch that night at 6 o'clock, and was on deck until the vessel struck. At 45 minutes past 9 o'clock on the night in question it was clear moonlight, and the wind was strong from the westward, with a heavy rolling swell. The engines were going at the rate of three quarters speed, as the master stated, for precaution's sake, when the *Tuna* suddenly stranded on the sandy beach with her head pointed to W. by N. ¼ N. She struck 300 yards from the beach, off Howhr, about 108 miles eastward of Aden, in latitude 13° 24′ N., longitude 46° 43′ E. (South coast of Arabia); and although it was a clear moonlight night, no land was visible on account of the haze, nor was any sound of the breakers heard. Immediately afterwards the vessel fell over to port, namely, seaward, until the water nearly reached the combings of the main hatch, when very heavy breakers commenced breaking over her fore and aft. The master, seeing that nothing could be done to save the steamer, the only chance of saving life being to take to the boats at once, ordered all hands to man the boats. Eventually the boats were lowered safely, and after much difficulty got clear of the vessel over the surf to seaward. Owing to the heavy seas and the rail being under water, all attempts failed to get into the berths to save any portion of the private effects or the vessel's papers. The boats then remained in the vicinity till daylight, and during that night they could hear heavy seas breaking most violently over the vessel. At dawn the weather moderated, and the boats pulled in-shore. The master stated that when the boats got pretty close to the wreck she appeared to be a little more upright, and accordingly proposed boarding her, but was unable to do so as there were Natives on board, all armed with clubs and bows and arrows, stripping her of all the metal parts, besides a large number collected on the beach; several dhows were making towards the vessel from the shore. The attitude of the Natives was most hostile to the shipwrecked crew, as the boats were chased for over six hours. The master was at last obliged to abandon her, and the boats determined to pull out to sea, hoping to meet some passing vessel. The men after undergoing great privation in the boat, without any food or water, were ultimately picked up 48 hours afterwards, by the steam-ship *Brenda,* and safely landed at Aden on the morning of the 24th. The carpenter stated that he went to the wheel at 8 o'clock that night, and remained until the vessel struck the ground. He positively stated that the master did not come on the bridge all the time he was at the wheel, except

when the disaster happened. But that statement was contradicted by the fireman who was on watch from 8 to 12 P.M. The chief engineer swore that on the night in question the vessel went three quarters speed, carrying 75lb of steam; that her consumption of fuel was 4 tons per diem; that she had 122 tons of coals on board; that the Plimsoll mark was a long way out of the water; that it was only down when she carried 160 tons of coals; that she was going through the water not more than 5 or 6 knots; and that the night was apparently clear, but hazy towards the horizon. He stated that the men meant to board the *Tuna* the next morning, but did not do so, fearing the Natives who were then on board armed. Some of the dhows followed their boats for several hours, but they got clear by pulling steadily to windward. The master stated that besides his own watch he had to keep the second officer's watch, and there was no second officer on board; he made an arrangement with the carpenter to keep a look-out for a short time daily. The master was never in bed for six weeks, but when his watch expired used to lie down on a rug on deck. Lloyds' Agents at Aden chartered the steam-ship *Viking* to proceed along the Arabian coast as far as Makalla, in order to look out for the wrecked vessel and report on her return. She reached Makalla on the 26th August and arrived at Aden on the morning of the 31st, but though she passed close to the coast, the master reported that he could see nothing of the steamer *Tuna;* and it was reported subsequently that she had broken up. Original value of the *Tuna,* £3,300. The crew 13 men. No lives lost.

(The steamer Tuna was eventually floated and taken into Aden harbour on the 30th December by some Arabs. These men, it appeared, did not purchase the wreck from either the owners or the insurers of the vessel, but obtained permission from the Sultan of the territory to salve the vessel; they made some compensation to the Sultan in money and presents for the permission and the expenses incurred in salving the steamer.)

[A Marine Court of Inquiry was held at Steamer Point, in the Court of the Resident, Aden, by the Political Resident and Sessions Judge, on the 26th, 27th, and 29th August, under the provisions of section 8 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances attending the stranding and subsequent loss of the above steamer about 108 miles East of Aden. The Court recorded that they assembled on the 26th August, and under section 13 of the above Act, appointed as assessor, for the purpose of this investigation, a gentleman conversant with maritime affairs, and adjourned the trial till the 27th. On the Court re-assembling on that day the written report of the master, describing the stranding of his vessel, was read and recorded. The Court having assembled pursuant to citation, recorded that the papers and correspondence relating to the case were read and filed, after which they took down the evidence of the master, the chief engineer, the first officer, the carpenter, and one fireman; and on conclusion of their evidence the Court further adjourned to the 29th, in order that they might consider their finding and order. The Court observed that the steam-ship *Tuna* was on a voyage from the Tyne to Port Napier, New Zealand; the passage was successfully made so far as Aden, average fair weather having been experienced. The chronometer was discovered to have been 14 miles out when off Rosetta, Egypt, and 18 miles whilst the vessel was in Aden harbour; at Aden the mean of three observations taken by artificial horizon gave that rate; but the master knowing his only chronometer had altered its rate, it would have shown greater care had he taken his observations on shore, and more of them. The steamer remained at Aden harbour for nearly 46 hours, and after taking in a supply of coal she proceeded. On leaving, her course was shaped for Cape Guardafui, which was duly made; after several attempts the Cape was rounded, but when Rás Hafún was made the sea was found to be too heavy; it was then decided to

put back to Aden. The first lull was taken advantage of to put the vessel round and shelter was obtained under the lee of Rás Hafún for the night, but on the next day, about 3-30 A.M., the steamer rounded Cape Guardafui and steamed along the land until past Rás Alúleh with Rás Filuk in sight. About 7 P.M. the course was set for Aden, W. by N., magnetic. The distance from Cape Guardafui to Rás Alúleh was 31 miles, and this distance was covered in about 4 hours, proving that the *Tuna* had a very favourable current; and considering that the master had passed through the Gulf of Aden so often, the Court considered that the setting a course for Aden at that time was an error of judgment, as an effort should have been made to hug the African coast not only to escape the strength of the adverse current in the Gulf and along the Arabian coast, which was not only heavy and uncertain in its strength during the height of the S.W. monsoon, *i.e.*, from the beginning of July until the end of August, but to take advantage of the favourable current running along the African coast, the force of which between Cape Guardafui and Rás Alúleh was given during the month of August at 37 miles in 24 hours, running to the westward and continuing in that direction, but gradually decreasing in strength until near Burnt Island. After leaving the African coast. the course W. by N. was steered whenever practicable, but when the wind and sea increased the vessel's course was altered for the purpose of keeping her bow on to the sea, as it was considered dangerous not to have done so. The course varied from S.W. to W.N.W., and about 51 hours after leaving Rás Alúleh, or from the time the course W. by N. was set, the steamer struck on the sands, and within two hours afterwards she was abandoned, the crew being literally washed out of her. The Court observed that at noon of the 21st August, the day on which the disaster occurred, the vessel was in latitude 13° 08′ N., but the longitude was uncertain, said to have been either in 46° 58′ E., or 47° 58′ E. and at 4 o'clock on the afternoon of the same day, nearly six hours before the steamer stranded, the vessel was stated by the master to have been in latitude 13° 05′ N., and the longitude uncertain; the distance from Aden being 155 miles, the chronometer made the distance 180, but the master knew that it was 25 miles out. Admitting that the correct position, 155 miles from Aden, was in latitude 13° 05′ N., it would give the longitude 47° 39′ E. nearly; and at about 4-30 P.M. the same day high land was seen bearing N. by W. at an estimated distance of 40 miles. The vessel's speed at that time was stated to have been 5½ knots, and the steamer stranded, going at that rate, at 45 minutes past 9 o'clock that night, just 5¼ hours after the land was seen. The Court observed that, taking for granted that the position at 4 P.M. was latitude 13° 05′ N., and the longitude about 47° 39′ E., the current must have been uncommonly strong to have set the *Tuna* on shore in such a short space of time; a W. by S. course would have been parallel to the shore, distant at 4 o'clock nearly 35 miles. The Court recorded that the assessor considered that the master was to blame in not having kept a better look-out whilst nearing the land, more especially when it was his own watch on deck; he took no means to determine if the vessel's course was properly steered, and no cast of the lead was taken to ascertain, if possible, the distance of the steamer from the land. At 4 miles from the shore, soundings not exceeding 50 fathoms would have been got, and the assessor was of opinion that the master was to blame for not having used the lead, more especially if he had any idea of the direction and strength of the current in the Gulf of Aden during the month of August, and knowing his chronometer was not to be depended on. The Court observed that information from the interior stated that the steamer was on shore at Howhr in latitude 13° 24′ N. nearly, and longitude 46° 43′ E., distance from Aden 108 miles; if that was correct, the vessel's longitude at 4 P.M., the day of stranding, would have been, taking the latitude as correct, about 47° 12′ E., distance from the nearest land 26 miles. The assessor was of opinion that the

steamer should have had another officer to keep watch, considering the long voyage and the heavy S. W. monsoon likely to have been encountered. He considered that the strain was too great on the master to keep watch and watch, besides being up at other times during bad weather, whilst nearing the land, or when anything unusual happened; vessels of the *Tuna* class for Eastern ports arriving at Aden during the S.W. monsoon, should be instructed to remain at Aden until the beginning of September, or until the strength of the monsoon was reported abating. The assessor considered that the principal cause of the *Tuna* going ashore was the strong current close to the Arabian coast, and which the master was evidently ignorant of. After a careful consideration of all the evidence that had been brought forward in this matter, the Court were of opinion that the steam-ship *Tuna* was *much too* small to have been sent on a voyage from Aden to New Zealand at that time of the year, and that she had not sufficient officers on board to ensure a proper watch being kept during so long a passage in a heavy S.W. monsoon. In addition to that she had only one chronometer, and that was discovered to have been out 18 miles when the vessel was in Aden harbour, and that error was probably very much increased during the stormy weather encountered off Rás Hafún. The error in the chronometer, combined with the force of the strong currents at that time of the year, accounted for the steamer having stranded so soon after observations had been taken. The Court remarked that had the master, after having rounded Cape Guardafui on return, hugged the African coast, the current would have been in his favour nearly as far as Burnt island, but by shaping a course for Aden when in the vicinity of Rás Alúleh, he probably encountered an adverse current, increasing in strength as he neared the Arabian coast. In doing so the Court considered that the master committed an error in judgment, but they did not think that such error afforded grounds for charging him with incompetency or misconduct. That the interest he had to stake was sufficient to ensure his taking every care of the vessel, as it appeared that he had lost upwards of £300. The reason the *Tuna* was so quickly abandoned was, that in the first instance, the crew were literally washed out of her, and that in the morning the presence of the armed band of Natives prevented them from boarding her, as they considered the Natives hostile. The certificate of the master was accordingly returned to him.]

52. The British Indian padow MAHAMOODY [of Belápur, 14 tons register, official number 2602, age not reported], from Bombay to Basseen, with a cargo of railway sleepers, value R15,000. On the 22nd August, at 9 P.M., the padow whilst leaving the Custom house basin, Bombay harbour, ran on a boulder, owing to the carelessness of the tindal, off the Gun-carriage bandar and stove a hole in her bilge; the cargo was all thrown overboard, and the crew safely landed. The next day the masts, sails, gear and all moveable articles being salved the padow, which was water-logged, was taken in tow by a pattimar (which was sent by the owner to her assistance) and towed up the harbour. At 10 P.M., when off the Custom house, the tow line parted, and the night being dark and squally, the crew of the pattimar could not see what became of the padow, but it was presumed that she probably drifted down the harbour with the strong ebb-tide and sunk in the bed of the harbour against the fishing stakes off the Oyster rocks. Loss, value of padow, R600. No loss of cargo. No lives lost.

53. The British iron screw steamer DALMATIA [of Newcastle-on-Tyne, 1,079 tons register, official number 88754, schooner-rigged, age 2 years, classed at Liverpool, Lloyds 100 A. I.], from Rangoon to Port Said, with a cargo of 1,240 tons teak timber and 100 tons cutch. The steamer, when she left Rangoon on the afternoon of the 12th August, was properly equipped, and had a chart of the Arabian sea by Messrs. Imray and Sons corrected up to 1883; also the latest

edition of Taylor's Sailing Directory and a copy of the Gulf of Aden Pilot. There were on board three compasses—a standard pole compass being kept on the wheel house, a second on the after bridge, and one on the upper bridge. The master stated that all the compasses were in order, and he steered by the compass on the upper bridge, but by the aid of a reflector she was also steered on the lower bridge from the wheel house ; they were tested daily by all the officers on watch as well as himself. The vessel's patent log was lost on the way from Saigon to Rangoon, and the one he got at the latter port was not to be depended upon. The *Dalmatia* was steered by steam, and steered fairly well. There was *only one* chronometer on board, and it was said to be in good order, and was last rated at Rangoon. At 7 P. M. on the 12th August the steamer, under charge of a pilot, was brought up at the entrance to the Rangoon river for the night, and on the following day the pilot left her off the Pilots' station. At 5 P.M., that day she got underweigh and proceeded on her passage ; she then drew 19′ forward and 19′ 10″ aft. All went well, and the vessel proceeded on the usual southerly course to avoid the S.W. monsoon, which was found to be very heavy with strong head winds up to the 19th. She passed between the Andamans and Nicobar islands, and whilst in latitude 4° N. experienced moderate weather ; she continued her voyage passing through the One and Half Degree channel, meeting fine weather until the 27th, when she encountered the S.W. monsoon again. At noon of the 27th she was by observation in latitude 3° 47′ N., longitude 59° 42′ E., the weather being cloudy with rain, and the wind strong from S.W. ; the course then steered by the standard compass was N. W. by N. (magnetic) until 6 P.M., when it was altered to N.W. ½ N., until noon of the next day, the run being 188 miles by observation. At noon on the 28th the steamer's position was latitude 5° 40′ N., longitude 57° 24′ E., and the course set N.W. ½ N. till noon of the following day, the run was 216 miles ; the position on the 29th at noon was 8° 13′ N. latitude, 54° 40 E. longitude ; the course thence to noon of the 30th was N.W., the deviation being 5° to 5½° westerly, and the run was 220 miles by observation ; at noon of the 30th she was in latitude 10° 25′ N., longitude 52° 22′ E., and the course was set N.W., and the steamer kept on that course till 8 P.M., when the distance run was 72 miles by patent log. There was then a heavy swell with a strong breeze, with passing rain squalls up till 8 o'clock that night, after which the wind moderated, the vessel going at the rate of 8½ knots an hour ; the wind and sea being on the port side the vessel was heeling slightly. Observations were taken morning and afternoon by the master assisted by the first or the second officer ; each worked them out separately and compared the results with the master. Azimuths, amplitudes, and bearings of the Polar star were taken twice daily. On that day, at 4 P.M., the master stated that sights were taken for the chronometer, which placed the vessel in 10° 52′ N. latitude, and 52° 05′ E. longitude. On that same evening, at 7 o'clock, a bearing of the North star was obtained, and the deviation found to be half a point westerly. An hour afterwards the engines were stopped and the crew took in all the sails and brought the vessel round head to sea, the first officer sounded in latitude 11° 15′ N., longitude 51° 40′ E., but got no bottom at 88 fathoms, after which she was put on her course again. The master told the first officer in the saloon he intended to take another cast of the lead at midnight, as he then expected to sight Cape Guardafui at a distance of over 10 miles, but the steamer unfortunately had not gone so fast as usual owing to the deterioration of the pump valves through the heat of the water. At that time there was a man on the look-out forward, a man at the wheel, and one man about the deck ; the second engineer was on watch in the engine-room, the second officer on watch on deck, the master being on the bridge off and on all that night. The first officer swore that the observations were not entered in the vessel's log-book, but in the abstract

of a log which he kept on deck, and which was lost in the steamer; and in the blank card left by the adjuster of compasses were entered the results of the observations, and that too was lost; the vessel's log-book had been saved, but not the official log-book. The second officer went on watch at 8 P. M., and received the compass course from the first officer of N.W. (magnetic N.W. ½ W. nearly), and which course was continued up to the time when the vessel struck, the deviation being about 5° westerly. After the lead was hove the second officer took a bearing of the Polar star by the steering compass, when the standard compass showed more Westerly deviation on the N.W. course; he also took an amplitude at sunset on the same day from the same compass, giving the deviation from 3° to 6° westerly. There was no order book on board this vessel, but the master's standing orders were to be particular about the courses steered, and to ascertain the deviation of the compasses. At that time there was not much wind, but a heavy sea was rolling from the S.W. which made the steamer very unsteady; the night was dark but clear over head, only a little hazy towards the horizon. The second officer deposed that at 10 o'clock that night he got a latitude of the Polar star giving 11° 18′ N., and handed it to the master, who said that it agreed with the 8 P.M. dead reckoning. At that same time he saw what appeared to be land about 2 or 3 points on the starboard bow, and reported it to the master, who was in the saloon; he could see no breakers or anything, and that it seemed to be 12 miles off. The master received the report, which evidently did not alarm him or induce him to take extra precautions, as he contented himself by telling the second officer that "we will see better as we go farther along." At 40 minutes past 10 P. M. the second officer feeling convinced that it was land, he reported it a second time to the master. Shortly afterwards the master went on the bridge and said "is that what you mean," indicating the land, when the second officer answered "yes;" thereupon the master said that it was only a cloud, but the second officer replied that it had never changed its outline, and was getting more and more distinct. The master stated that from noon on the 30th up to the moment the catastrophe occurred the average speed of the vessel was reckoned to be 8 or 9 knots an hour. At a quarter to 11 that night the land was clearly in sight a point and a half on the portbow, and continued to be visible until the steamer stranded. At 11 P.M., the master asked the second officer to look through the glass at a white line which then appeared under the black land, who did so, and said that it was either the beach or the breakers. The master made no remark, except that he told him to see whether there was any one on the look-out, when the second officer went forward and ordered the look-out to keep a good watch for land. After a lapse of fifteen minutes the look-out man shouted "breakers ahead," when the master at once called out "stop her", "hard-a-port," and told the second officer to lend a hand, and ran to the telegraph and rang it full speed ahead. The steamer answered her helm at once and went off from N.W. to N. E., and a minute afterwards the *Dalmatia* struck on the sands, about 150 yards from the beach, near Rás Shenarief, 15 miles South of Cape Guardafui, (N.E. coast of Africa), and commenced to bump heavily. At 11-20 P.M. she was broadside on to the surf nearly fast in the sands, and the seas began striking her heavily fore and aft on the starboard side, breaking in the cabin, the officers' berths, and the side lights. At 30 minutes past 11 o'clock the chief engineer ran on to the bridge and reported to the master that the main beam in the engine-room had broken either in the bunkers or through the vessel's side, and several of the pipe connections and the engine-room and stokehole were filling fast with water; he also communicated his fear of a boiler explosion, when the master finding it impossible to get the steamer's head round to sea again, he ordered the engineer to stop the engines and to blow off steam. At that time the rudder broke, the starboard life-boat and the davits were carried away.

After the vessel struck the ground the land was visible, but as the moon got clearer it was seen very distinctly; the top of the high land being discernible above the haze, which was the white line the master had sighted at 11 P. M., the wreck of a French man-of-war, supposed to be that of the *Renard*, was then visible 10 miles to the southward of the *Dalmatia*. The master stated that he made an allowance of one point for the N.N.E. current, which set the vessel 40 miles in 24 hours. On the morning of the 31st, at 12-30 A. M., the steamer ceased thumping heavily on the sands, when the crew recovered the life-boat and got it under her lee, after which the master sounded round the vessel, 2 fathoms being found on the starboard side and on the portside 8′. At 4 A. M. the master seeing that nothing could be done to save the steamer, and that the only chance of saving life was to take to the boats at once, ordered all the hands to man the life-boat. At daylight the surf was very heavy on the beach, and he tried to run a line on shore but failed, he then dropped the port anchor and veered out 15 fathoms of chain, when the crew sounded the vessel and found water up to the beams in the after and main holds on the starboard side, and in the engine-room the water was on a level with the crank shaft, and steadily increasing. A great number of Somalis, armed with knives, &c., had then collected on the shore. At 7 A. M. sighted a steamer in the offing, the starboard life-boat was got ready and provisioned, but the master could not at first induce any of the men to enter it until the first officer volunteered to go, and then 6 men followed him. It was instantly despatched to try and intercept her with a view to obtain assistance if possible, but the boat evidently lost sight of the passing steamer, and on account of the strong wind and sea it did not return to the wreck, and subsequently rounded Cape Guardafui, finally reaching Rás Alúleh. On the afternoon of the 1st September several Somalis swam off to the *Dalmatia* ready to plunder her, when the master, fearing that they might molest the crew, as they were making signs for them to go ashore, directed the port life-boat to be provisioned and got ready for lowering. The second officer and 9 men got in it, and the boat no sooner left than it got broadside on to the sea and capsized, but was quickly righted and all the men were rescued, and with the aid of the Somalis the boat safely reached the shore. At 6 P.M. the master, with the remaining 5 men and his wife, left the wreck in the jolly-boat, and all in it safely landed. Between 11 and 12 o'clock that night the master's wife died from severe injuries received, and was buried on the beach. Before abandoning the steamer the master observed that she was fast breaking up, having taken a strong list to starboard, the decks were fully exposed to the heavy swell, and 12′ of water were in the engine-room. On the evening of the 4th the master, the second officer, and 14 men after remaining on the beach for 3 days, left on camels for Rás Alúleh, for which the master gave the chief of the place a bond of 245 $, he not having any money with him. In the meantime the men subsisted on the little biscuit and a few tins of preserved meats which they had saved from the wreck. On arrival at Rás Alúleh the master found that the first boat had reached safely; at that place they got a little rice and on one day goat mutton. On the 10th, the men were all put on board two dhows—one of which belonged to the Sultan—and finally arrived at Aden on the morning of the 16th. The master swore that this was the first accident which had ever happened to him in steam, and when in charge of a sailing ship in 1868 the vessel touched the ground, but was very slightly damaged. The first officer affirmed that a little after 11 P. M. on the 30th the telegraph ring awakened him, when he thought it meant the second cast of the lead, and almost immediately he felt the steamer strike the ground; he ran up on the bridge, and after seeing land right along her beam on the portside, went aft, and finding that the rudder was broken inside

the trunk, reported it to the master. The witnesses, one and all, positively stated that the master was a good and careful navigator and a sober man. A seaman swore that he relieved another seaman on the look-out on the forecastle head at 11 o'clock on that night, and after being on deck 10 minutes he saw the land ahead, and that the beach was visible, but for some unaccountable reason he did not report it to the second officer. He stated that there was a good moon that night, only it was hazy towards the horizon. After some little time he was certain that it was land, because the breakers came in sight, and just as he shouted out "breakers ahead," he heard the master ringing the telegraph "stop her" and "hard-a-port;" he at once ran from the fore-castle head to the wheel house to assist in putting the helm over, when the second officer said it was not his fault, as he had twice informed the master that it was the land. After that the look-out man helped in getting a boat over the side, but the sea filling it carried the foremost davit away, the first officer then cut the after fall and passed it to the lee side, where, after bailing the water out, the boat was provisioned. The man at the wheel stated that he saw a funny cloud with a lot of white stuff underneath it a little after 11 P. M., and almost immediately after the breakers were reported ahead the master shouted out hard-a-port, but he did not remember whether the steamer answered her helm or not, as the vessel struck the ground instantly and took seas on board on both sides of her. The man on watch on deck stated that about 10 P. M. on the night in question it was a fine moon, and there was a swell from the S.W., but not much wind, and there was then nothing in sight. An hour afterwards a heavy cloud was seen rising, he remarked it to the man at the wheel, who looked out of the wheel house door and said, "it is a queer cloud," and within a quarter of an hour the breakers were seen ahead; the helm was put hard-a-port and the vessel rounded to 4 or 5 points and then grounded, after which the land was distinctly visible on the portside. The first officer stated that the steamer's position was marked on Imray's chart by the master at noon of the 30th, as the master showed it to him, and said, "see we are 106 miles from Cape Guardafui;" he again saw the vessel's position at 8 P. M. that night marked by the master, when the chart indicated no soundings there. The second engineer swore that at 19 minutes past 11 P. M. the telegraph rang "stop," and before he could carry out that order it rung "full speed ahead;" the vessel struck very heavily amidships, and becoming agitated he at once went up and called the chief and third engineers, who followed him. The engines were running full speed ahead for 12 minutes, when they were stopped, and the chief engineer, observing that the engines were rocking owing to the excessive bumping of the steamer, went on the bridge and communicated to the master his fears of a boiler explosion, and immediately returned and ordered the second engineer to open the safety valves, to run up one of the after tanks, and to blow off steam. On the 20th September Her Majesty's ship *Sphinx* visited Cape Guardafui, when she found the steamship *Dalmatia* on shore in latitude 11° 30′ N., longitude 51° 09′ E. about 8 miles S.W. of Rás Shenarief. There was a very heavy surf running, and the sea was breaking clean over her, and she had every appearance of having been plundered. The *Sphinx* observed another wreck nearly 8 miles S.W. of the *Dalmatia*, an iron steamer, which from her appearance had evidently been there a considerable time, but he could not discover her name. The master accounted for the stranding of his steamer by the current having changed from N.N.E. to N.N.W. on or between the hours of 4 and 11 P.M., on the night of the 30th. The master more probably was trusting to the current and leeway to carry the steamer clear of the land, for, when the land was reported by the second officer, he stood on until the information was confirmed a quarter of an hour afterwards by the look-out shouting breakers ahead; it was then too late to

adopt any effectual measures. Original value of steamer *Dalmatia,* £30,000; cargo, £13,220. The crew, 23 men, and one passenger (the master's wife); one life lost.

[A Marine Court of Inquiry was held at Steamer Point, in the Court of the Resident, Aden, by the Political Resident and Sessions Judge, on the 19th, 21st, 22nd, 24th, 25th, and 28th September, under the provisions of sections 7 and 9 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances attending the stranding and subsequent loss of the above vessel near Rás Shenarief. The Court duly assembled on the 19th, 21st and 22nd September pursuant to citation, the papers and correspondence relating to the case were read and filed, after which they made a preliminary investigation under section 7 of the above Act, taking the evidence of the master and of others whose evidence appeared to be material. In the course of that inquiry it appeared to the Court that there were sufficient grounds for framing charges against the master. The Court thereupon directed him to withdraw, and on his withdrawing, retired for deliberation, and after a quarter of an hour framed charges against the master, charging him as follows :—That he by his wrongful act and default caused the loss of the steam-ship *Dalmatia, first,* in not having laid down his course carefully on the 30th August; *secondly,* in having failed to port the helm directly there were reasonable grounds to suppose that he was in the immediate vicinity of land; and *thirdly,* in having failed to take a cast of the lead about that time. A copy of the statement of the grounds upon which such charges were framed and of the charges themselves were then furnished to the accused. It seemed that this investigation was likely to involve the consideration of the question as to the cancellation or suspension of the certificate of the master of the *Dalmatia;* they therefore, under section 13 of the above Act, appointed as their assessors two persons being conversant with maritime affairs, one the port officer of Aden and the other a pilot, who possessed a certificate of competency from the Bombay Government, and the Court adjourned for the trial of the charges until the 24th. On the 24th and 25th witnesses for the prosecution were examined, and on conclusion of their statements the Court called on the accused for his defence. The master asked to be allowed to read a written defence, and on permission being given, he did so. The accused was present in Court during the whole of the proceedings, and had full opportunity of cross-examining the witnesses and making a defence, he also called two witnesses, and made a farther statement which was taken down in writing. The Court further adjourned till the 28th, in order that they might consider their decision. The Court recorded that it was acknowledged by the master that the positions given of the steamer at noon of the 28th, 29th, and 30th August were fairly correct. From noon of the 28th until noon of the 29th the distance run given by the patent log was entered in the log-book as 210 miles, and the actual distance run as 216 miles; the compass course steered as entered in the vessel's log-book was N.W. ½ N. for 22 hours and N.W. for 2 hours, the rate of speed being 9 knots throughout the 24 hours. The magnetic course made good was N.W. ¼ W. nearly, and the distance found was 220 miles. From noon of the 29th until noon of the 30th the compass course steered was N.W.; the deviation was 5° West, and the variation by reference to the chart showed 2° 30′ West. The magnetic course actually made good was N.W., northerly, and the distance 189 miles; the actual distance entered in the log-book was 220 miles, and that given by the patent log 222 miles, showing that a current was against the steamer, or the patent log exceedingly faulty; the rate of speed entered in the vessel's log-book was 9 knots and 9½ knots. From noon of the 30th until the *Dalmatia* stranded, the compass course steered was N.W., the deviation 5° West, variation 2° 30′ West, and the magnetic course N.W. ¼ W. nearly. The steamer was wrecked about 15 miles South of Cape Guardafui in

latitude 11° 36′ N., longitude 51° 11′ E.; if then that position was correct, the magnetic course actually made good was N.W. 4° N., and the actual distance run from noon in 11 hours (allowing 20 minutes for taking a cast of the lead) was 100 miles. From noon of the 30th until 8 P.M., the vessel's speed was entered in the log-book at 9 knots, there being no log-line fitted, but had there been a log reel properly fitted there was only one man available instead of three men, the number required to heave it; the rate of speed could not therefore be ascertained except when the patent log was examined (it was stated not to be trustworthy), or the distance measured on the chart between the steamer's last and present positions. On the 30th the vessel was not running her usual speed, but the assessor believed her to be going between three-quarters and full speed, because the sea water had greatly increased in temperature. The positions of the vessel at noon on the 28th, 29th, and 30th contradicted the master's statements, *viz.*, that the steamer made her courses more northerly by a point and a half to a point and three-quarters. The compass course set at noon of the 30th was N.W., when on that day the deviation was alleged to be 5° West, whereas the variation in latitude 11° N., longitude 52° E. was 2° 30′ West. The magnetic course steered would be N.W. $\frac{1}{4}$ W. nearly, and the magnetic course made good was N.W. 4° N., showing therefore a difference of three-quarters of a point. The course set at noon of the 30th was a proper course until 8 or 9 P. M., but after that time it became a dangerous course, as, unless some contingencies happened, *viz.*, expected current and leeway, the vessel was heading for a coast always considered dangerous in the S.W. monsoon. At 10 P. M. the second officer, who was then on watch, reported to the master that he saw a big bank looking like land right ahead, and 40 minutes afterwards the second officer feeling convinced that it was the land, reported it to the master. Soon after a white line was seen under that land (supposed to have been a cloud by the master); the master thereupon told the second officer to look at it through the glass, who did so, and said that it was either the beach or the breakers, when the look-out man shortly afterwards sung out breakers right ahead. The master at once shouted "stop her," "hard-a-port," "jump down and lend a hand," but the *Dalmatia* unfortunately only went off 4 or 5 points, when she took the ground and commenced to bump heavily. According to the wind and current chart of the Arabian sea in latitude 10° N. longitude 52° E., a current was shown from 70 to 80 miles in 24 hours setting to the N.E., and in the vicinity of Cape Guardafui a current about 38 miles in 24 hours, setting to the N.N.E., was also shown. That current, had it actually existed with a heavy sea from the S.W., should undoubtedly have taken the steamer clear off Cape Guardafui on a N.W. magnetic course; but the evidence showed that that current was not felt up to noon of the 30th. From noon of the 30th until the vessel struck the ground the course made good was less than three-quarters of a point to the northward of the course laid down, but the currents could not be depended upon. The master of the steam-ship *John Pender* whilst repairing one of her cables on the 1st September (just two days after the *Dalmatia* was wrecked) in latitude 13° 15′ N., longitude 47° 45′ E., found the current setting N.E. by E. $\frac{1}{2}$ E. (magnetic) 3$\frac{1}{2}$ to 4 knots per hour, but in latitude 10° 05′ N., longitude 47° 10′ E., there was not the slightest current. The Court recorded that the Nautical assessors were of opinion that the master erred in having allowed so much current and leeway, and probably would not have lost his vessel had he not persistently refused to acknowledge the second officer's eyes were better than his own. But when the look-out shouted breakers ahead, confirming the second officer's report, action was at once, without a moment's delay, taken by the master to escape the threatened danger, but unhappily too late. When the second officer—a young and intelligent midshipman—reported at 10-40 o'clock that night, he was certain

that it was the land, the master, although entertaining a different opinion, should, as a careful navigator, have hauled the steamer off at once and taken a cast of the lead to verify his position, and for not having done so, the master was much to blame. Again, when the second officer looked through the glass and reported that it was either the beach or the breakers, the helm should then have been put down at once and the vessel hauled right off the land and a cast of the lead taken at a safe distance, as there was nothing to prevent that being done; the night being hazy on the horizon should have made the master doubly cautious in nearing the land. The vessel's log-book kept by the first officer was never signed by the master; the variation was only once recorded; and on the 29th and 30th the current was recorded as setting North, but no rate was given. A cast of the lead was taken at 8 o'clock, and another was to have been taken at midnight. The master was off and on the bridge all night, and never left it for half an hour or 40 minutes before the vessel stranded; the watch on deck consisted of the second officer and three men; the second officer keeping watch on the upper bridge, one man at the wheel on the lower bridge, one man on the look-out right forward, and one man either on the lower bridge or in the wheel house standing by to trim the binnacle lights, &c. The evidence proved that the master was a sober man and attentive to his duties. The Court recorded that the Nautical assessors suggested that in the Gulf of Aden Pilot the sailing directions might be altered at page 11 by leaving out the words "having made the land, it is desirable to round Rás Asir *quite close* to avoid being set to the northward away from the coast, the current running across the entrance to the Gulf and not round the Cape, except close in to the coast," and substitute "a sailing vessel having rounded Rás Asir should keep the African coast close on board," and so on to end of the paragraph; and at page 42—current—the following should be omitted "whereby a vessel, *unless close* in with the land, would be set out of her course and probably lose her passage." The Nautical assessors observed that the sailing directions under notice were originally compiled when there was no Suez Canal, and when many sailing vessels visited the Gulf of Aden. The Court were of opinion that the steam-ship *Dalmatia* was in a safe and seaworthy condition when she left Rangoon on the 12th August, and that she remained so until the night of the 30th August, when she stranded about 15 miles South of Cape Guardafui. After a very careful investigation of the circumstances of the wreck, the Court found that it was necessary to charge the master with wrongful act and default under section 9 of the above Act. Nautical assessors were appointed, and the points upon which the master was charged again most carefully investigated. It appeared that the positions of the steamer at noon on the 28th, 29th, and 30th August were fairly correctly given. At noon on the 30th the vessel was 100 miles from the African coast, the compass course set at that time being N.W. On that day the deviation was said to be 5° westerly, and the variation in latitude 11° N., longitude 52° E., was 2° 30′ West, the magnetic course steered would be N.W. $\frac{1}{4}$ W. nearly, therefore the magnetic course made good was N. W. 4° N., showing a difference of three-quarters of a point. The Court observed that the course set at noon on the 30th was a proper course until 8 or 9 P. M., after which it became dangerous, for, unless there was a strong current and leeway, the vessel was heading for a coast always considered dangerous in the S.W. monsoon. According to the wind and current chart of the Arabian sea a current was shown in the vicinity of Cape Guardafui about 38 miles in 24 hours setting to the N.N.E., and the master allowed for that current after noon of the 30th, although the evidence showed that the current was not felt up to noon of that day, and in doing that he committed a great error in judgment. He was also much to blame in disregarding the opinion of the second officer, who reported to him at 10-40 P.M. that he was

certain that the land was in sight, for, had the master been a careful navigator, he would have hauled off the vessel at once and taken a cast of the lead. Again, when the second officer looked through the glass and reported that he could see either the beach or the breakers, the master should have put the steamer about and taken a cast of the lead. The evidence proved that the master was a sober man and attentive to his duties, and that a good look-out was kept on the vessel, every one being on the alert when the *Dalmatia* took the ground. It seemed also that arrangements were made to take a cast of the lead at midnight. As soon as the man on the look-out confirmed the opinion of the second officer and called out "breakers ahead," immediate action was taken by the master by stopping the engines and having the helm put hard-a-port, but it was then too late to save the vessel. After a careful consideration of the evidence the Court were of opinion that the stranding of the steam-ship *Dalmatia*, 15 miles to the southward of Cape Guardafui, was lost through the default of the master, but in consideration of the severe losses sustained by him, the accused master, the Court did not deal with his certificate. They therefore had much pleasure in returning the master his certificate.]

54. The British iron paddle steamer COURT HEY [of Calcutta, 274 tons register, official number 49318, age 20 years], was employed as a tug steamer in the Hooghly river. On the 29th August the tug *Court Hey* was lying at No. 7 swinging buoy abreast of the Esplanade moorings, Hooghly river. At 9 o'clock that night, it was the last quarter of the ebb-tide, the weather was cloudy with squalls, and the wind light from the westward; the steamer began to sheer about very heavily in consequence of the great force of the tide. The master enquired of the first officer how long the vessel had been in that state, and was informed half an hour; but at 9-50 P. M. the tug took a heavier sheer, owing to which the pin on the shackle of the mooring chain parted. The port anchor was immediately let go and the helm put hard-a-port, but the tug began drifting down the river; at this time the steamer *Alexandra,* which vessel was lying at No. 6 swinging buoy, was hailed several times to put her helm hard over to starboard, but the master received no reply until 10-30 P. M., when the *Court Hey* came into collision with the *Alexandra;* just then the crew reported that there was no officer on board, not even the serang; the *Court Hey's* starboard quarter struck the *Alexandra's* stem on portside, the latter vessel then paid out about 10 fathoms of chain, which parted and she also got adrift; the *Court Hey* was then swept by the force of the tide on to the *Alexandra's* buoy and rolled over it, and on the buoy coming up on the other side of the steamer's keel, it knocked a hole in her bottom in the engine-room, thereby causing her to spring aleak. On finding that she began to fill quickly and was sinking, the pumps were at once set on, and at the same time the master hailed the Port Commissioners' fire-engine vessel to come to her succour; the order to get up steam was given directly the tug parted from her mooring, but the water gained so rapidly on her that the fires were soon extinguished. At 11 P. M., the fire-engine vessel, with the deputy harbour master in charge, came alongside, and attempted to keep the steamer afloat by putting on two hoses below, but these proved ineffectual; efforts were also made to stop the leak, but by midnight it had increased, there were then 8′ of water in her hold, and she began to drive, when the master ordered the anchor to be let go to prevent her drifting farther down, and she was finally brought up with 75 fathoms of cable below Fort Point, but the *Court Hey* unfortunately dragged her anchor and slightly fouled the steam-tug *Hunsdon* paddle-box to paddle-box. As soon as she got below No. 1 swinging buoy the anchor was slipped and every endeavour was made to get the *Court Hey* to the western side of the river and there beach her on the sands, but this was unsuccessful owing to the fire-engine vessel having very little control over her in consequence of the strength of the

tide. During this time the water had gained rapidly notwithstanding that the pumps were kept constantly going, because of the fire-engine vessel being unable to work her engines and pumps at the same time; the steamer thus drifted as far as the Botanical gardens opposite the Bishops' college. At 12-45 A. M. (on the 30th) there being a risk of fouling the inland steamer *Bengal* with flats lying inshore, the master let go the *Court Hey's* starboard anchor, but it did not hold, and she slightly collided with the *Bengal,* and after striking her drifted clear, when the master dropped another anchor off Shalimar point on the Howrah side of the river in $3\frac{1}{2}$ fathoms of water, and on examination of the hold, it was found that the water had increased to 12′. At 1 A. M. as the tug swung to the ebb-tide the fire-engine vessel broke adrift from the steamer, and soon afterwards the *Court Hey* foundered a little below the point in 4 fathoms, the master, the first officer, and some of the crew remaining on board until two or three minutes before she sank. Original value of steamer *Court Hey*, £25,000. The crew, 48 men, were all saved in the tug's boat and a dingy.

[A Departmental Committee of Inquiry was held in the office of the Port Officer, Calcutta, on the 3rd September, for the purpose of inquiring into the circumstances attending the collision of the steam-tug *Court Hey* with the tugs *Alexandra* and *Hunsdon* and the fouling of a buoy by the *Court Hey*, which casualty took place on the 29th August, and her subsequent collision with the inland steamer *Bengal,* on the 30th, whereby she foundered. The Committee assembled pursuant to citation, and the master of the late tug *Court Hey* was called and the papers and correspondence relating to the case were read and filed. The Committee observed that the *Court Hey* proceeded up the Hooghly river from the Sandheads on the afternoon of the 27th August, and was safely anchored in the harbour at No. 7 swinging buoy; the first officer superintended the making fast of the vessel to her buoy on that occasion. He stated that the pin, which was an oval one, was secured in the shackle by an iron forelock with a hole in the head of the forelock through which a wire seizing was passed; it being a split forelock, which was opened out by a chisel, and a piece of coir rope yarn was driven in to keep it open. The master said that the steamer was lying safely moored to the buoy, and he observed that on the night of the 29th, the last quarter of the ebb-tide did not appear to be so strong as on the 28th; there were four 600 maunds coal boats anchored alongside on the previous night, but there was no unusual weight or boat attached on the night of the accident. At 9-40 P.M. the master, who was on shore, returned aboard, and finding the tug was sheering very heavily in consequence of the great force of the tide, asked how long she had been in that state, and was informed half an hour. At that time it was last quarter ebb, weather cloudy with squalls, and the wind light from the westward; there was no extra watch kept as the tug was sheering, but there was a seacunnie at the wheel, two men forward keeping a good look-out, another at the gangway, and the first officer on the deck. Just then one of the look-out men reported that the steamer's chain had parted, but it was subsequently found out that the pin had come out of the shackle. Instantly the first officer felt a jerk aft he ran forward and let go the port anchor. The master, who was standing talking to the first officer on the poop, ordered the helm to be put hard-a-port in the endeavour to sheer her in the stream and thus keep clear of the tug *Alexandra,* which vessel was lying at No. 6 swinging buoy. On the anchor being dropped 15 fathoms of chain ran out and it canted the *Court Hey's* head up the river, but the turns unfortunately fell off the weather bitts and 60 fathoms chain ran off the deck and 15 fathoms came up out of the locker, and there being no space to bring up, she fell athwart the *Alexandra's* bows, striking the latter vessel with her stern. As soon as the anchor was dropped the master and three others from on

board the *Court Hey* hailed the steamer *Alexandra* in a loud tone several times to put her helm hard-a starboard, but got no reply; the *Court Hey* remained locked for a few seconds, when some chain, belonging to the *Alexandra*, ran out and she also parted from her moorings. The *Court Hey* then rolled over the *Alexandra's* buoy and swung to her anchor head to tide. At this time the master ordered the carpenter to sound all the holds; the carpenter and a fireman tindal went down the stokehole and engine-room for that purpose, but the fireman tindal immediately on hearing a rush of water coming into the vessel on the starboard side ran up and reported it, whereupon the master and the first officer at once proceeded below to ascertain the exact position; they were not able to discover the locality in consequence of the hole being under the engine room, but only heard the rush of water flowing in. Orders were given by the master to get up steam directly the tug parted, but the water rose so rapidly that the fires were put out, when the *Court Hey's* three pumps were set on and the fire-engine vessel was hailed for assistance. The master stated that "immediately it was reported that there was a hole in the vessel we hailed the Port Commissioners' fire-engine vessel. We were brought up abreast of her within hailing distance; this was at 9-55 P. M. They replied; what do you want, or what is the matter? We sung out we want your assistance, as we are sinking; we hailed repeatedly. At one hail I said there was 6′ in her; once we heard him say, "as soon as we have got steam." The first officer stated that "when we brought up abreast and within easy hailing distance of the fire-engine vessel, both the master and myself shouted out several times, will you please come alongside of us, we are sinking. The answer was no; it came distinct and clear; this was about 10 P. M.; the fire-engine vessel came to us, as near as I can say, at 11 P. M." In the meantime pumping was resorted to, and the crew appeared to have given willing assistance until there were 6′ of water, when they were partially disorganized, and seemed to have entertained the idea that the vessel was sinking. The master then endeavoured to inspire the crew with confidence, but their hopes and energies could not be raised, and they had to be driven to the pumps. After receiving the reply of "no" from the fire-engine vessel, the first officer rung the alarm bell to attract the attention of the shipping. At 11 P.M. the fire-engine vessel came alongside, and the master handed to the *Court Hey* two suction hoses, one of which was put down the stokehole and the other in the engine-room, precaution being taken to keep a coal basket over the mouth of the lower end of each hose to prevent any kind of rubbish choking the hoses, but there seemed to have been great difficulty in coupling the fire-engine's hoses together before they were got to work satisfactorily on account of the crew being panic-stricken. Two officers from the ship *Parthenope* rendered great assistance in coupling the hoses, and afterwards in bending the chain on to the starboard anchor. The fire-engine vessel, however, was of little service, and the hoses had to be disconnected two or three times, as they were not drawing. At midnight the *Court Hey* began to drive with 80 fathoms of cable out, and when off Fort point she came into contact with the tug *Hunsdon*, paddle-box to paddle-box, thereby doing slight damage; the major portion of the crew had left by this time, some went on board the steamer *Hunsdon* and others on the fire-engine vessel. The master then slipped the chain and stopped the pumps of the fire-engine vessel and connected the screw with the engine, as the pumps and the screw could not work at the same time; the fire-engine vessel then went ahead full speed with both helms hard-a-starboard, in order to beach the tug on the northern bank, and when off the Bishops' college the *Court Hey* fouled the inland steamer *Bengal* at 1 A.M. on the 30th, but did no damage to the latter vessel. This had the effect of sheering the *Court Hey's* head down the river, the vessel then being in 3 fathoms; the pumps were going without intermission, and on clearing the flat a second anchor was got ready and let go off

Shalimar point in a quarter less 4 fathoms, but when swinging round to the ebb the fire-engine vessel broke adrift and could not go alongside again; the *Court Hey* remained afloat for nearly 20 minutes and then sank in 4 fathoms. There was no loss of life. The shackle used for mooring the *Court Hey* to the moorings of the buoy was the same size and description as used by the other steam-tugs for that purpose. The first officer stated that at the time the pin fell out of the shackle he could not have made a hawser fast to the buoy, or have used any other precautions in consequence of there being such a strong tide, and the vessel sheering about so much that she could not be got near the buoy again; the helm, however, was amidships when the *Court Hey* parted from the buoy, but it was put hard-a-port immediately afterwards. She had no conveniences for making two cables fast to the buoy moorings and having a cable bent to her anchor at the same time, but there would have been no difficulty in making a wire hawser fast to the buoy. The first officer said that he had used such precautions on board the tug *Challenge* when bores were expected; that he used a short length of coir hawser in the *Court Hey;* and that the last springs were the strongest that year but there were no bores. The *Court Hey* carried two European engineers, a master and a mate; the rest of the crew being natives. The master and the first officer both positively stated that the steamer was never left without a European officer in charge; the master's instructions to the first officer were to let him know when he had any urgent business on shore and he would relieve him. The seacunnie of the tug *Alexandra* stated that on the night of the 29th August he was asleep on the bridge; there were no European officers on board, but two lascars kept watch—one being aft and another forward; the steamer had a wire hawser fast to the buoy moorings besides the cable, and was lying safely anchored. When the *Court Hey* hailed, these two men went and awoke him, he got up and put the helm hard-a-port, and at the same time he heard the master of the *Court Hey* sing out, but he could not hear what the order was. The *Alexandra's* chain parted after the collision, and the port anchor, the cathead and the davits were carried away; she then sheered into the channel and drifted down, but when abreast of Prinsep's ghât her starboard anchor was let go and 20 fathoms of cable veered out, but as she was still driving, 20 fathoms more chain were paid out when she brought up with a surge and parted. Immediately orders were issued to get up steam, and a kedge anchor was dropped with a 6″ rope on it, sheering her down. When abreast of the India General Steam Navigation Company's dockyard, Kidderpur, the master and officers of the Government steamers *Undaunted* and *Tigris*, without loss of time, boarded the *Alexandra,* let go another anchor, and safely brought her to anchor abreast the Rajganj Ferry stage. The Committee, after a careful consideration of the evidence in this case, were of opinion that no blame was to be attached to the steam-tug *Court Hey* for her cable having parted, but they considered that it would have been prudent had the master taken the precaution of having a hawser fast to the buoy; the collision with the tug-steamers *Alexandra, Hunsdon,* and *Bengal* could not have been avoided when she broke adrift from her mooring buoy; and the Committee considered that the master of the *Court Hey* did all in his power to save his vessel. With regard to the steamer *Alexandra* the Committee considered that she was left in a very helpless condition without a European officer on board and contrary to Port rules. The Committee observed that there appeared to have been much delay in taking the fire-engine vessel alongside the tug *Court Hey* and some difficulty in connecting the hoses; the fire-engine vessel would have been more efficient had she been able to work her screws conjointly with the pumps. The Committee desired to place on record their opinion that some praise was due to those officers who rendered assistance to the tugs *Court Hey* and *Alexandra.*]

The Officiating Port Officer (on examining the proceedings of the Committee) recorded that he did not find any evidence which showed that the steamer *Court Hey* was properly secured on her arrival in the harbour, or whether any responsible officer personally superintended, or otherwise satisfied himself that he had no doubt as to that work of securing the vessel having been correctly performed. The men who actually shackled on the tug's chain to the ring of the moorings should be examined, and also the officer who saw that work done; as with the evidence taken at present the Officiating Port Officer was not in a position to inform the Government that the steamer *Court Hey* was, in the opinion of the Committee, properly secured on her last arrival in port, and which naturally the Government would expect satisfactory information upon. The Committee should record whether, in their opinion, the shackle used by the *Court Hey* was a serviceable one, and whether the method adopted of securing the forelock through the pin of the shackle was a safe plan to adopt; the master of the tug should also be examined as to how he satisfied himself that the chain of the *Court Hey* was secured safely to the moorings. The Officiating Port Officer returned the proceedings of the Departmental Committee of Inquiry, and requested the Committee to re-assemble to clear up the above points, with a view to the completion of the investigation.

[The Committee sat on the 15th September, and after having read the order for assembling, also an extract of a letter from the Officiating Port Officer, they called and examined the master, the first officer, and a lascar of the *Court Hey* and the deputy harbour master of the port. The Committee recorded that it appeared from an extract from the deputy harbour master's order book notice was given to the fire-engine vessel at 10-30 P. M., and within 15 minutes she left her station and got alongside the *Court Hey* at 10-55 P. M. and commenced pumping at 11 P. M. The master of the *Court Hey* stated that it was the usual practice for him to remain on the bridge under steam until the first officer reported that the vessel was fast. On the last occasion of picking up the buoy it was slack water, the vessels were lying athwart, and there was no difficulty in adjusting the pin and the forelock in the shackle; but after the first officer informed him that she was all fast he left the tug, believing the vessel to be properly secured, he having every confidence in his first officer. The forelock had a large head at one end with a hole in it, the other end being split; the forelock was about 1″ broad, $\frac{3}{8}$″ thick, with $\frac{3}{4}$″ spare pin outside it. The usual practice was to secure the forelock into the pin by passing turns of wire through the hole of the forelock and round the pin and by caulking a piece of coir into the split end, but during perigee springs and bores a 15″ coir spring, which was kept on board for that purpose, was also shackled to the buoy. The first officer said that between 1 and 2 P.M. on the 29th August he saw the men shackle the chain to the moorings; it was slack water at the time, and there was no difficulty experienced in making fast to the buoy; the coir was caulked into the jaws of the forelock, which practice was adopted every time the *Court Hey* anchored off town. The first officer stated that the same method of securing the forelock was adopted by him on board the tugs *Challenge* and *Defiance*. The lascar stated that on the last occasion he and another man went in a boat to assist in making the vessel fast to the buoy; the pin fitted tight, and unless the mark on the head of the pin corresponded with the mark on the shackle, it did not fit; he then put in the forelock, which had a hole in its head, and opened the other end and drove in a piece of coir, which was about 15″ long and was doubled up 7 or 8 times until it was $\frac{3}{4}$″ thick. After that operation the split ends were closed with a hammer till it firmly nipped the coir, the ends being still a little open; then a piece of wire, 6 or 7 turns, was passed through the hole in the head of the forelock and round the end of the pin, a new piece of wire being used each time. The deputy harbour master of the port said that the shackle

was a very good one; the iron was good, but somewhat worn, and showed no sign of a crack; there was no pin or part of a pin in it when taken from the buoy. He considered the manner in which the forelock was secured in the pin of the shackle by the lascar on board the *Court Hey* to have been perfectly safe. The Superintending Engineer of Messrs. Turner, Morrison and Co. after having inspected the shackle, said that it was very old, and was grooved and reduced from its original section all over; the section of metal in body was $1\frac{7}{8}''$ diameter, and in the eyes it was not equal to that; he still considered that the body of the shackle itself was strong enough for the purpose it was used. The cause of the steamer *Court Hey* having got adrift was the dropping out of the pin of the shackle owing to the jaws of the shackle opening out $1\frac{3}{8}''$; those jaws opened out from the strain brought to bear on one side by the sheering about of the tug in swift water with currents, but they would not have so opened out had the usual split key which went through the pin been it its place, or if in its place, it must have been too weak. He was of opinion, therefore, that the cause of the vessel getting adrift was either the absence of the usual split key in the shackle pin or the weakness of that key if in its place. The Chief Builder and the Officiating Inspector of Machinery, Government dockyard, were both of opinion that the mooring shackle of the tug *Court Hey* was considerably corroded and reduced from its original section, but nevertheless it was sufficiently strong for the duty required; the cause of the steamer having got adrift was the want of the usual split forelock. The altered shape of the shackle was caused by the mooring chain link jamming between the point of the pin and inside of the shackle, thereby forcing the jaws apart. After a careful review of the evidence, the Committee came to the conclusion that the steam-tug *Court Hey* was properly secured with regard to the manner of making her cable fast to the buoy, and that extra precautions were taken in securing the forelock in the pin of the shackle. They were of opinion that the shackle was a good, strong, and serviceable one, but that, considering how close the tugs anchor to one another, the master of those vessels should always, during strong tides, have a hawser bent to the buoy as an extra precaution.]

The Officiating Port Officer recorded that the history of the catastrophe appeared to be this:—The steam-tug *Court Hey* was riding at swinging moorings in the Hooghly river safely until about 9-50 P.M. on the 29th August, when she suddenly parted her mooring shackle and drifted down on the tug *Alexandra,* which vessel was lying at the next buoy astern of her. On being fouled the *Alexandra* parted her chain and also drifted down the port. The *Court Hey* then went over the *Alexandra's* mooring buoy, and on the buoy coming up the other side of the *Court Hey's* keel it drove a hole in her bottom, with the result that she foundered on the head of the Bishops' college sand on the morning of the next day. Immediately on finding the *Court Hey* adrift her master let go the anchor; but it apparently did not hold, and she only brought up after the buoy had been fouled and he had veered 80 fathoms of chain. At midnight she began to drive, and on the way down the port she slightly fouled the tug *Hunsdon;* the master then slipped her chain, and, with the assistance of the fire-engine vessel which had previously gone alongside, endeavoured to beach the vessel above Shalimar point on the Howrah side of the river; but there being a risk of a collision with the inland steamer *Bengal* with flats lying inshore (as it was, a slight collision occurred, without damage) she drifted, and after having passed the *Bengal* let go another anchor, and as the tug swung to the ebb-tide, the fire-engine vessel broke adrift from the *Court Hey* and the steamer then went down 20 minutes afterwards in 4 fathoms of water. There was no loss of life; but the tug was beyond recovery, as she began to settle into the sand immediately after foundering. The Officiating Port Officer entirely concurred with the finding of the Departmental Committee of Inquiry that no blame was attached to the

master (a licensed steam-tug pilot of the Hooghly river) of the *Court Hey*. When he found himself in extreme difficulty he did all that a seaman could have done to save his vessel, and the same could be said of his first officer, who stuck to his work well. A good number of the crew deserted the steamer and jumped on board the tug *Hunsdon* when the *Court Hey* came into collision with that vessel, and therefore left her very short-handed to get the spare anchor ready, and to pump at the same time. With regard to extra precautions being taken by vessels lying at swinging moorings, it was recommended that an addition, to the Port rules, be made, thus:—"all vessels lying at swinging moorings shall, during the freshets (15th June to 31st October), in addition to their bower chain, have the end of a good hawser also fast to the ring of the moorings." The Officiating Port Officer could hardly concur with the Committee that the tug *Alexandra* was left in a very helpless condition, as the tindal on board seemed to have dropped her safely through the most difficult part of the port, and deserved much credit for what he did. The *Alexandra* was only boarded by Europeans when abreast of the India General Steam Navigation Company's dockyard, below Kidderpur. He could not even state that it was contrary to Port rules; but he certainly considered that a vessel of that size, and lying in the stream, should have had a European officer (engineer not to be counted) always on board, and suggested, for the safety of vessels in the harbour, the following Port rules:—"(*a*)—River steamers and tug-vessels within the port, commanded by Europeans, shall at all times have on board a European master, or mate, in addition to the required number of crew mentioned in schedule I of Act III of 1867, and this crew shall be at least composed half of deck hands. (*b*)—One engineer shall also always be on board both day and night." The Officiating Port Officer in his other capacity as Deputy Conservator of the Port carefully investigated the reported delay of the fire-engine vessel belonging to the Port Commissioners, and was satisfied that the deputy harbour master's report was correct. The fire-engine vessel had steam up day and night with an assistant harbour master always in attendance, and he had, both in night and day alarms, never seen the vessel fail to get away within a reasonable time. She was not adapted for towing, and it seemed that the water rushing into the *Court Hey* could not have been overcome by the pumps of the fire-engine vessel. The question of her increased efficiency so as to work with screws and pumps at the same time had been referred to the Port Commissioners, under whose direct orders the floating fire-engine vessel was. The notice taken by the Committee as to some praise being due to those officers who rendered assistance had been fully met by the Agents, so far as the *Alexandra* was concerned; but the conduct of the deputy harbour master, who was most prompt in proceeding to the aid of the *Court Hey* and giving the master of that vessel valuable assistance, was highly satisfactory. The question of the ill-fated steamer breaking adrift appeared in the evidence adduced on the first day not sufficient to give the Government all the particulars they required, so that the Committee had to re-assemble and take up the special points regarding the shackle which connected the tug's chain to the ring of the moorings; and in the second day's investigation he entirely concurred with the finding of the Committee, *viz.*, that the shackle was a serviceable one, and that all precautions—in fact extra precautions—were taken to secure the forelock in its place. The quantity of iron in the shackle was very much in excess of what was required for a vessel of that size, and the reason why such a large shackle was used was that a smaller one would not take the ring of the moorings. The shackle was shown to experts in *iron*, and they all agreed that it was quite large enough—in fact had more than sufficient iron in it to hold a vessel of the size of the *Court Hey*, but neither the Government experts nor the gentleman deputed by the Agents of the *Alexandra* had a tittle of evidence to show that the forelock was not a proper one; that it was

not properly put through the pin; and that the pin was not suitable to the shackle; but they had merely assumed in one case that the forelock was not put through the pin, and in the other case that if it was there, it was too weak. The shackle was very large as compared to the tug's chain that went from the hawsepipe; and that in the heavy sheers the *Court Hey* took the ring of the mooring slipped on to the round of the shoulder of the shackle and the steamer's chain slipped close down to the lug of the shackle where the pin passed through, the result being that an enormous and unfair strain was brought to bear on the pin of the shackle; it gradually opened out and bent down the forelock, but instead of the forelock breaking or not being there, it resisted the withdrawal of the pin, and the result was that the pin broke close to the lug of the shackle; the two pieces fell out and the steamer *Court Hey* was adrift. She was undoubtedly properly and securely fast; all the necessary precautions were taken to secure the tug's chain to the moorings, which work was carefully superintended by the first officer of the vessel and the shackle pin was properly secured. The Officiating Port Officer was of opinion that the disaster was due to the heavy sheering of the tug during strong tides, causing therefore an unusual strain to be brought to bear in one part of the shackle resulting in the breaking of the pin and eventual loss of the steamer.

The Lieutenant-Governor of Bengal accepted the finding of the Departmental Committee of Inquiry that no blame attached to the master of the tug *Court Hey*.

(For an account of the Alexandra, Hunsdon, and Bengal, see Casualties Nos. 255, 256, and 258.)

SEPTEMBER.

55. The British Indian wooden brig VANUGOPALSWAMY [of Vizagapatam, 160 tons register, official number 1 of 1878, age 27 years, no class], from Vizagapatam to Maulmain with gingelly seeds, oil, ghee, &c., and R2,000 in silver. The brig sailed on the 9th September, and nothing unusual occurred until the 16th of that same month, when, at noon of that day, she encountered a severe storm from the S.W., 60 miles to the westward of the Preparis islands; her upper decks were swept, the chain plates were driven out, heavy seas broke into her, a portion of the cargo was thrown overboard, she was on her beam ends, and would not right. The vessel continued to drift along to the eastward, and on the following day, at 3 A.M., she stranded on a rock nearly 10 miles to the S.W. of the Preparis Group (Burma coast) and soon afterwards broke up. Immediately the vessel struck the ground the master directed the boat to be got ready for lowering; all the men got into it, when a heavy sea broke over it and washed one man away; there were no provisions of any kind or water in the boat. The men landed on a small island, one of the group of the Preparis, where they obtained a little water by digging, but no shell fish or fish of any kind were procurable; they, however, appeased their hunger by devouring some leaves of a tree called the *kaira*. On the 18th they proceeded to a second island, and getting no water and nothing to eat, they moved on to a third island, where they found a little water by again digging and some more leaves to eat; at that time rain began to pour down in torrents, in consequence of which they were unable to light a fire to attract passing vessels. The frail boat was fortunately provided with a sail, and for fear of starvation it was finally decided to leave the island and put to sea and steer to the North with a view to try and reach the mainland. But when ready the master could not induce six of the men to enter the boat, as they absolutely refused to leave the island, whether they lived or died, and only 13 of the crew, including the master, sailed in the boat on the 20th. The wind was at South when the boat left, but it afterwards changed to

the East and became strong; the master made a course drifting to the westward. On the 3rd October they obtained a little rain water which was caught in the hollow of a thick bamboo which they had taken with them from one of the islands; the water was eked out for three days, the unfortunate men drinking very little each day, but they had no food of any kind all the time. The master of the Turkish barque *Nusser Musjid* reported that on the 9th October, whilst in latitude 16° 43′ N., longitude 89° 21′ E., Bay of Bengal, he sighted a sail in the water, and at once ordered one of his boats to be lowered for the purpose of ascertaining what it was, when the occupants of the boat, which was a native one, were discovered to be the master and 12 of the crew of the unhappy vessel, who were in a dying condition, having suffered great hardships and privations for 23 days. They were instantly taken on board and well cared for, and ultimately landed safely at Calcutta on the 23rd of the same month. The Marine Authorities at Rangoon were telegraphed to with the object of rendering assistance to the six men who remained on the island, and it was reported that the Government steamer *Enterprize,*—which vessel had been despatched for the purpose of rescuing the ship-wrecked men of the barque *Faizool Kurreem* and ship *Helen Pembroke,* both of which vessels were lost on the northern side of North Andaman island in the same cyclone—returned from Preparis without finding any trace of human beings. Original value of brig *Vanugopalswamy,* R12,000; cargo, R5,164. The crew, 20 men; seven lives lost.

56. The Chinese wooden steamer FLYING CLOUD [of Pulo Penang, 25 tons register, official number 70016, age 4 years, no class under British colours], from Pulo Penang to Pulo Larut, with a general cargo and 35 passengers on board. The master stated that the steamer left Pulo Penang on the 18th September, at about 9 P.M., bound to Port Weld; the weather was rough at the time, and after clearing Pulo Remo it became worse; the wind was blowing in heavy squalls from the W.S.W., and seas continually breaking over her. The crew then requested the master to put back for the safety of the lives and cargo; the master thereupon tried to turn the vessel round, but she would not answer her helm; a heavy sea then caught her, breaking clean over her, the cattle on board, 15 in number, broke adrift and got to leeward, as well as the passengers, when the steamer heeled over to such an extent that the seas poured into the engine-room and hatches, and she sank within a few minutes. Including the crew and passengers, there were 52 souls on board, 15 of whom saved themselves by hanging on to the masts and rigging of the steamer. The vessel foundered at 12 P.M., in 6 fathoms of water, about N. ½ W. of Pulo Remo (Malay Peninsula). These 15 men were picked up after being 18 hours exposed to the winds and waves and conveyed to Pulo Penang. Immediately on receipt of the news of the disaster the Authorities despatched the steam-launch *Alert* to the scene of the catastrophe. She reported that the decks of the steamer had blown up, and prospects of being able to raise her were not promising. The *Alert* searched about Pulo Remo and the South of that island in order to see whether any of the passengers or crew had managed to get on shore, but without success. On the 22nd six more survivors were picked up by a fishing boat, hanging on to some wreckage off Pulo Remo, and safely landed at Pulo Penang. Loss, value of steamer *Flying Cloud,* $16,000; cargo, $1,000. The crew, 17 men, and 35 passengers; the master, 12 of the crew, and 8 passengers were saved, and the remaining 31 men (4 seamen and 27 passengers) were drowned.

[A Marine Court of Inquiry was held at Pulo Penang to investigate the cause which led to the disaster, but the result was not known to this Department.]

57. The British Indian wooden barque FAIZOOL CURREEM [of Masulipatam, 250 tons register, official number 32 of 1877, age 30 years, no class], from Masulipatam to Rangoon, with 5 passengers and a cargo of chillies, castor-oil, ghee and 15 sheep. Nothing of importance occurred till the 19th Septem-

ber; when passing to the northward of North Andaman island the vessel encountered a cyclone, and although the master anchored the barque in 12 fathoms of water, she parted from her anchors, and the heavy sea, combined with the gale, drove her ashore on the South side of Landfall island at 4 P.M. that same day, and she became a total wreck. Original value of *Faizool Curreem,* ₹38,000; cargo all lost; value ₹15,000. The crew, 28 men, and five passengers; two passengers and five of the crew who, against the advice of the master, endeavoured to swim ashore, were drowned; the remaining 23 men and three passengers reached the shore on Landfall island, whence they were eventually picked up by the bagla *Ganga Padarath* and safely landed at Rangoon.

[A Special Court of Inquiry was held in the Court of the Deputy Commissioner, Rangoon, by the District Magistrate, on the 19th and 20th October and 4th November, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), to inquire into the circumstances connected with the stranding and subsequent loss of the above vessel. The Court recorded that on the 20th October, having assembled pursuant to citation, the master of the barque was called, when the Government Prosecutor reported that the master, though duly warned, was not present. Whereupon the Court, after the papers and correspondence relating to the case were read and filed, proceeded to examine the other witnesses and issued a warrant for the arrest of the master; but none of the witnesses having arrived, the Court adjourned the trial and directed fresh summonses to be issued on a day to be fixed after the Dúrga Púja vacation. On the Court re-assembling on the 4th November, the witnesses being present they were examined, and on conclusion of their evidence the finding of the Court was read by the President. The Court observed that on the afternoon of the 17th, the horizon being clear, sights were taken, and the position of the vessel by observation was 14° 04′ N. latitude, and 91° 50′ E. longitude, since which time not a glimpse of the sun had been visible to enable farther observations to be taken. All proceeded well until the noon of the 18th, when, to the westward of the North Andaman island, the barque encountered very strong winds from the N.E., which continued up to 10 o'clock that night, after which the wind shifted to North; at 4 A.M. on the 19th the vessel was proceeding under foresail, foretopsail, and mainsail, and a hurricane was blowing from N.W. with very heavy rain. About 3 P.M. on that day land was sighted right ahead to the eastward, when the master luffed the vessel to the wind; there was a heavy sea running at that time, and the lead being hove gave bottom at 25 fathoms. After the barque was luffed up to the wind, the main topsail and the maintopgallant sail were blown away, also the jib and the spanker, when the master ordered the foretopsail to be furled, leaving only the foresail and the jib set; at 4 P.M. the tiller chains carried away, and a cast of the lead being taken 12 fathoms was obtained, when the master dropped the anchor, veering chain to 50 fathoms. Shortly afterwards the chain parted, whereupon the master let go a second anchor and paid out 40 fathoms of chain on it, but there being a heavy sea running, it held only for an hour, when it parted. The barque had now only a small anchor left, and had nothing to fall back upon in the event of losing that, and the crew made a Manila hawser fast to it with such support as could have been given to it by paying out the full length of that rope, but the vessel did not bring up, and drove on shore on the South side of Landfall island at about 8 P.M. At that time the cyclone was as violent as ever, the sea very heavy and confused, and the night dark; after the vessel struck the ground the crew became panic-stricken and great confusion prevailed; the master told the men to stay on board until daylight, but five of the crew with two of the passengers jumped overboard against the remonstrances of the master and the officers, and were drowned in the surf.

The master, officers, and remaining crew, together with 3 passengers, remained on board all night, and the next morning they got ashore on a raft. The vessel commenced to bump and make water, and during the night she bilged and fell broadside on to the sea, her bottom having apparently been knocked in. The 26 men stayed on the Landfall island till the 24th September, when they left in one of the ship's boats, and whilst making for Cocos island they were picked up by the bagla *Ganga Padarath* and eventually landed at Rangoon. The Court recorded that the prosecutor informed them that on the day in question there was a cyclone in the Bay of Bengal in which the ship *Helen Pembroke* and the brig *Vanugopalswamy* were wrecked within a radius of 14 miles. After maturely considering the evidence in this case, the Court were of opinion that the stranding of the barque *Faizool Curreem* off the Andamans on the night of the 19th September was caused by a cyclone, and that no blame was attached to the master or officers of the vessel. It was observed that the master (*nakhoda*) possessed no certificate either of competency or service.]

58. The British iron ship HELEN PEMBROKE [of London, 1,475 tons register, official number 76977, age 8 years, classed at Lloyds, 100 A. I.], from North Shields to Port Blair and Calcutta, with a cargo of 2,063 tons Tanfield Moor smithy coals, besides 24 tons for ship's use. It appeared that the ship arrived at Port Blair and discharged 1,464 tons of coals and with the balance, 599 tons, she resumed her journey for Calcutta. She left Port Blair on the morning of the 15th September, the weather being then fine and clear, the wind a gentle breeze from the S.W.; thence to where the vessel was lost very variable weather; heavy gale from S.W. by W. accompanied with torrents of rain. On the 19th, at 1 P. M., there was a heavy gale blowing N.N.W. and W.N.W., with violent squalls and high sea, so that the crew had to stow the upper topsails; at 2-30 P.M. heavy rain with violent gusts; 6 P.M., tried to furl the lower foretopsail which blew to pieces; at that time the vessel not being able to carry sail, and being only in ballast trim, was being driven to leeward with the violence of the cyclone, whereupon the master endeavoured to wear the ship on the other tack, and on that failing, let go the starboard anchor, but at 1-30 A. M. on the 20th, she was driven on a coral reef in Casuarina Bay, east side of North Andaman island. At 6 A. M. the wind and sea moderated, when the whole of the crew were mustered, the boats got out, and the anchors were laid out and attempts made to kedge her off with the aid of the boats, and all to no purpose. Efforts to get her off were continued up to the 25th but without success. On that day the vessel was lying on the beach in a sheltered position with main and mizenmasts gone, and was abandoned. The crew then started for the Cocos island in three boats, and after three days and two nights they landed on Table island; the master's boat, with 10 of the crew, including himself and his wife, reached on the afternoon of the 27th; the first officer arrived two days later with 6 of the crew, leaving the third boat at West island with the second officer and 9 of the crew until assistance could be obtained. On the 7th the Indian Government steamer *Enterprize* arrived and her commander took them on board from Table island, after which she proceeded to West island and sent two boats on shore, which returned with the second officer and 9 men; the steamer then weighed and proceeded to Rangoon. The Commander of the Indian Government steamer *Kwangtung* reported that on the 16th October he anchored about ½ a mile off the *Helen Pembroke*, which vessel was found to be lying in 1¾ fathoms of water at a spot 2 miles South of the southernmost point of Casuarina Bay with a list of 20° to starboard, and to seaward, the direction of the head being to the southward; the mainmast was gone by the board, evidently cut away; her bottom was much injured; all the stanchions in amidships being bent to an angle of 60°, the vessel was split on both sides amidships from the covering board as far down as could be seen; and the water in

her was rising and falling with the tide. There appearing to be no prospect of getting her off, the *Kwangtung* at once commenced to salve as much as possible of the vessel's stores and fittings, and landed them at Port Blair. The Commander stated that the work of salvage was most arduous, as the stench from the bilge water, decayed provisions, &c., was something indescribable; many of the sails and all the rope had to be dragged up from under water in a most stifling and poisonous atmosphere. On the 21st the steam-tug *Ava* arrived on the scene of the disaster, but her master finding that the vessel had broken her back and was a complete wreck, left for Rangoon on the afternoon of the following day. The hull and cargo, together with her stores and furniture, were sold by public auction at Rangoon on the 18th October for the sum of R1,695; original value of ship *Helen Pembroke*, £18,000; cargo, £780. The crew, 28 men, and one passenger (the master's wife) were saved in three boats, two reaching Table island and the third West island, whence they were taken off by the *Enterprize* and landed at Rangoon.

[A Special Court of Inquiry was held in the Court of the Deputy Commissioner, Rangoon, by the District Magistrate on the 14th and 15th October, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), to inquire into the circumstances connected with the stranding and subsequent loss of the ship *Helen Pembroke*. The Court recorded that, having assembled pursuant to citation, the master of the ship was called and the papers and correspondence relating to the case were read and filed; the Court took the evidence of the master and of others whose evidence appeared to be material, and then ordered the parties to withdraw, and considered their finding and order, and after about a quarter of an hour's deliberation the finding was read to the master by the President. The Court recorded that the ship on leaving Port Blair on the 15th September drew from 13′4″ to 13′9″ even keel and was light in ballast trim. Nothing of importance occurred with the vessel up to the 20th. At daylight of the 18th the master sighted the Preparis island bearing N.E. by E., distant 14 miles; the weather was then fine and the wind light from the West and W.N.W., but at noon the Preparis island was out of sight, and the ship was heading S.W.; the weather was a little dirty and threatening in the afternoon, the wind from N.N.W. to W.N.W. being unsteady; at 3 P. M. the barometer stood at 29·80, but after that it commenced falling, the weather squally with rain. At 6 P.M. the weather was looking suspicious from the N.W., but the master did not anticipate a cyclone nor any heavy weather, although he knew that cyclones were prevalent in the Bay of Bengal during September. At 11 o'clock that night the master wore ship and headed North with the wind W.N.W. On the 19th, at 4 A.M., the master wore the vessel again to the S.W., the wind being then N.W. by W.; she went close-hauled on the starboard tack, the wind increasing in force with the barometer between 29·70 and 29·60, but an hour afterwards the wind being very variable with heavy squalls, the gusts coming from N.N.W. and settling to N.W., the crew reefed the topsail and stowed the mainsail. The vessel after going 19 miles on the S.W. by W. course, from 4 A. M. a calm came on which lasted for half an hour. At 8-30 A. M. the ship was under reefed topsails, lower topsails, foresail, foretopmastsail, and inner jib, which was all the sail she could carry. At noon of that day the vessel was stated to be by dead reckoning in 14° 07′ N. latitude, and longitude 92° 30′ E., the barometer had fallen to 29·55 and heavy squalls came on from W.N.W. and settled to N.W., accompanied with thick blinding rain, rendering it impossible to see the length of the ship. At that time the master finding that the ship could not carry the upper fore and main topsails, ordered them to be stowed and the topgallant yards to be sent down; also the lower mizentopsail to be stowed. An allowance of $1\frac{1}{4}$ points was made for leeway, but after the upper topsails were taken in the vessel was making full five points leeway.

At 6 P. M. the gale was as violent as ever and the crew were compelled to take in the lower foretopsail, when the foresail split to ribbons. Half an hour afterwards the barometer showed 29·50, which was the lowest recorded, when the master supposed that the cyclone was at its maximum. At 8 P. M. the weather was still worse, the wind keeping in the same direction with very heavy rain, but the vessel was making 8 points leeway. At half past 10 o'clock that night the master called the first officer and showed him the vessel's position as laid on the chart, and after a little consultation told him that if the wind kept up the ship would most assuredly drift on shore. After making due allowance at midnight, the master considered the vessel was in latitude 13° 42′ N., longitude 92° 34′ E., by dead reckoning, and nearly 20 miles from the nearest point of West island; the master did not know what the rate of the currents was, but they were most variable in their direction. At that time the wind inclined to W.S.W., and the barometer was rising slowly, when at 1 o'clock on the morning of the 20th the whole of the crew were summoned to wear the ship, and whilst in the act of carrying out that manœuvre land was reported by the look-out, and immediately afterwards breakers; on which the master ordered the helm to be put hard-a-port and the starboard anchor was let go, when the *Helen Pembroke* struck on a coral reef in Casuarina Bay. A boat was then lowered to sound round the vessel, but the depth found was nearly the same. The master stated that at noon of the 19th he did not think it necessary to attempt to run his vessel for the channel between the Andamans and the Cocos, as it was blowing a hurricane, and she could not carry sail; that the chains and ropes were all in good order; that he did not take soundings as the ship was drifting too fast, being light in ballast trim; that by his reckoning she was not in soundings, the sea was running too high, that he did the very best he could have done for the safety of the vessel and her crew; and that, under the trying circumstances, he was on deck the whole of that night and on the previous day, and had exhausted all the means at his disposal for the purpose of navigating the vessel. The master said that he wrote the entry in the ship's log-book in pencil the day after the vessel stranded, but the leaves were subsequently torn out and re-written in ink; the master's explanation in regard to this was not satisfactory, and the first officer could give no explanation at all. The master finding that there was no possibility of saving the ship or any portion of the cargo, determined to abandon the vessel and get on shore; he succeeded in having landed all hands without any accident, but he failed, however, to save any of his private effects or the vessel's papers. On the 25th September the whole of the crew started for the Cocos island in three boats, and after being three days and two nights landed on Table island, whence they were eventually picked up by the Indian Government steamer *Enterprize* and safely landed at Rangoon on the afternoon of the 8th October. After a careful consideration of the evidence brought forward in this case, and from a perusal of the chart the master was navigating by, the Court were of opinion that the ship *Helen Pembroke* was wrecked on the East side of the North Andaman in Casuarina Bay during a cyclone on the early morning of the 20th September. The Court was farther of opinion that no blame was attached to the master and the officers of the ill-fated vessel *Helen Pembroke*, and that the master did every thing in his power to secure the safety of his ship. The master and officers were accordingly acquitted and their certificates returned to them.]

59. The British Indian wooden ship CHETAH [of Calcutta, 760 tons register, official number 49906, age 21 years, re-classed in 1864 in American Veritas 5/6 I. I. for 6 years], from Calcutta to The Mauritius, with a cargo of 1,120 tons rice, dhâl and gram and 30 native deck passengers on board. It appeared that at daylight, on the 22nd July, the ship proceeded down the Hooghly river, in charge of a pilot and in tow of the tug steamer *Challenge* and went safely to

sea, the pilot leaving, and the tug casting off, the vessel at about noon on the following day; but on the 25th she encountered a gale in the Bay of Bengal (exact position not given), which caused the ship to labour and leak so considerably as to necessitate the master's bearing up for Chittagong. After having been carefully surveyed and repaired, she left Chittagong for the Mauritius on the 16th September. Since then nothing has been heard of the vessel, but the owners at Calcutta believe she must have been lost in the fearful cyclone of the 22nd of September in the Bay of Bengal. Original value of ship *Chetah*, R86,000; cargo, R1,00,000. The crew, 35 men, and 30 passengers; 65 lives lost.

60. The British Indian wooden ship MERCHANTMAN [of Calcutta, 885 tons register, official number 911, age 33 years, class not reported], from Calcutta to The Mauritius, with a general cargo, and 36 passengers on board. The ship had a crew of 3 European officers besides the master, and 37 native seamen, and was laden with a cargo of grain, gunnies, oil and ghee, bound to The Mauritius. She left Calcutta on the morning of the 20th September in pilotage charge and in tow of the steam-tug *Electric*, and had on board 30 native deck passengers, together with 3 surgeons (creoles), and 3 compounders in the cabin belonging to the Mauritius Emigration Department. The vessel had been carefully overhauled, and had received extensive repairs in August 1884, and was well found in sails, running gear, &c.; she was not overladen, and had a sufficient crew for the voyage. The assistant harbour master swore that the *Merchantman* seemed to be staunch in every way whilst being transported from her moorings to Garden reach; that there was no appearance of crankness in her when he sheered her three or four times very heavily in a strong tide; that she was well found; and that he had handled her on two or three previous occasions. The ship safely proceeded down the Hooghly river, and the same evening anchored at Saugor roads. A little after noon on the following day, the pilot left her off the Sandheads, the weather being then fine, the wind fresh from N.E., when the master steered S.S.E., and continued on that course up to 8 o'clock that night. She was proceeding under three lower topsails, foresail, fore and maintopmast staysails. Late that afternoon the wind was from E.N.E. with a 6-knot breeze on, and the sea moderate. At 8 P.M. the wind and sea increased, the barometer rapidly fell, and there was generally a threatening appearance to the S.E. At 10 P.M. the wind shifted to East, and having freshened to a gale the course was altered to S. by E. and the mizentopsail and the maintopmast staysail were furled in preparation for a blow, and the barometer still falling. An hour afterwards a strong gale, with a terrific sea, came from the East, the waves dashing on board fore and aft, and the vessel laboured very heavily; the fore hatch was battened to keep the water from going below, and everything secured about the decks. The crew, who were at that time of need called to sound the pumps, refused to work, and all huddled together in a corner through fear; they, however, subsequently furled the foresail and the lower foretopsail. At midnight the vessel's position was 50 miles S.S.W. of the Eastern Channel light-ship; it was then blowing a perfect hurricane; the lower maintopsail and the foretopmast staysail were blown away. At 1-30 o'clock next morning (the 22nd) she was proceeding under bare poles, when the wheel chains were carried away, but the crew continued steering the vessel with tackles after much difficulty. At that time there was no way of getting near or sounding the pumps as the fore hatch was smashed in and a large quantity of water got in there. Shortly afterwards a tremendous sea broke over the poop, carrying away the binnacles, boats, skylights, &c., and the water was up to the combings of the hatch. At 30 minutes past 3 the first officer went below to see the reading on the barometer, and found it had fallen to 28·20; also observed that the starboard side of the poop

was broken in by the sea, and the lee side of the cabin full of water. From that time till the catastrophe occurred a succession of heavy seas swept over the vessel from stem to stern. The first officer stated that for half an hour he remained below securing the chronometers, charts, &c., from the water. At 4 A.M. the barometer suddenly rose to 28·50, when he at once came up and reported it to the master, who was with his second officer standing on the poop. The master, after looking round, said that at that time it was hopeless to do anything farther to save the ship owing to the vessel lying steadily over on her starboard side. Just then a tremendous sea struck the ship from leeward, thereby causing her to straighten up and settle bodily down in the water, and within 7 minutes she foundered about 20 miles E. N. E. of False Point light-house (Orissa coast). The master said to the first officer, "good-bye, God bless you," as he took him by the arm before he went overboard. The master, the first and the second officers then managed to secure life-buoys, but in consequence of the heavy seas the master and the second officer were drowned. The first officer stated that he saw a lot of people in the water on the wreckage, but owing to the heavy seas breaking over them they were all drowned, with the exception of one native seaman and himself. On the same day at 2 P.M. the master of the ship *Britannia* observing people clinging to hatches and spars and life-buoys, ordered one of the life-boats to be got out, when they succeeded in picking up the first officer and one seaman after being in the water 7 hours, and they were safely landed at Calcutta on the afternoon of the 24th. Within a very short time after the news of the disaster reached town, the Marine Authorities sent out the Government steamer *Undaunted* to cruise off the Sandheads in the hope of picking up any other survivors, and the Port Commissioners' steamer *Resolute* was ordered to visit the seaface of the Sunderbuns and look in at all the Refuge houses along the coast for any traces of the survivors, but they returned after some days without finding any of the missing officers, crew, or passengers of the *Merchantman*. Original value of ship, ₹1,50,000; cargo, ₹70,000. Crew, 41 men and 30 native deck passengers, besides 3 surgeons (creoles) and 3 compounders in the cabin; 75 lives lost.

[A Special Court of Inquiry was held in the office of the Port Officer, Calcutta, by the Officiating Chief Presidency Magistrate, on the 6th and 13th October, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances connected with the foundering of the ship *Merchantman* about 20 miles E.N.E. of False Point light-house on the 22nd September. The Court recorded that, having assembled pursuant to citation, the witnesses being present (the only two survivors) the papers and correspondence relating to the case were read and filed. On the conclusion of the evidence the investigation was adjourned till the 13th, in order that the Court might consider their report. The Court observed that it appeared that the ship proceeded from Calcutta on the morning of the 20th September, bound for The Mauritius, with a general cargo, and on the following day at 1-30 P.M. the pilot was discharged at the Sandheads, the wind being then from the eastward, blowing moderately strong with a threatening appearance to the S.E.; the master set a course S.S.E. up to 8 P.M. The vessel was then under the three lower topsails, foresail, and foretopmast staysail. At 10 o'clock that night the wind had freshened to a gale with a heavy sea and falling barometer, when the lower mizentopsail and the maintopmast staysail were taken in. At 11 P.M. the lower foretopsail and the foresail were taken in and furled. At midnight it was blowing a furious hurricane, the lower maintopsail and the foretopmast staysail were blown away, there was a terrific sea running, and the vessel was lying over heavily; the deck passengers were sent below into the 'tween decks and the fore hatch battened down; the pumps were sounded and 12″ of water found in the well. The native crew were ordered to the pumps, but refused

to go through fear. At half past 1 A.M. of the 22nd the steering gear was carried away, but was repaired. An hour afterwards a heavy sea broke aboard, sweeping everything off the poop deck. At 3 A.M. the master discovered that the front of the poop on the starboard side was stove in, the water filling the cabins on that side and she was lying over with the lee side of her deck submerged up to the main hatch combings. The gale was then at its greatest height, the seas terrific, and the barometer standing at 28·20. At 4 A.M. the master, who was on the poop with the second officer, observed to the first officer, who at that moment joined them, that the vessel was settling down. They all three managed to secure life-buoys, but a heavy sea just then rolled on board from the lee quarter, washing the master and the second officer overboard. The *Merchantman* then righted for a moment, and made a plunge and foundered. All on board were drowned, *viz.*, 75 hands excepting the first officer and one native seaman, who were afterwards picked up by the ship *Britannia* and brought on to Calcutta. The Court were of opinion that the ship, when she left Calcutta, was in a seaworthy condition, well found, and cargo properly stowed; nor was she overloaded, her load mark being 15″ above the water. The vessel was skilfully handled by the master from the time of the pilot leaving until she foundered. The Court recorded that they had no evidence to show whether the barometer on board the *Merchantman* gave any warning of an approaching cyclone before the pilot left her. The Court were of opinion that the master felt very anxious in his mind at the threatening appearance of the weather, as his last request to his pilot before leaving was to let him know by signal when he reached the Pilot brig whether any cyclonic weather was expected by those in charge of the brig. The signal agreed upon, *viz.*, "C," not having been hoisted at the Pilot brig the master felt satisfied that this was merely an ordinary easterly gale; he discharged the tug *Electric* and proceeded on his voyage. It was not until 11 P.M. that he was aware that a cyclone was overtaking him, the increase of wind and sea with a falling barometer warning him of its approach. Being placed in the position his vessel was in, the only thing for him to have done was to lay-to where he was and receive the whole strength of the hurricane. He was placed between two dangers—to the northward of him was the Sunderbuns and in his track a cyclone, which eventually overtook him. The Court observed that they had not been able to come to any decision as to the final cause of the foundering of this ill-fated vessel. There was nothing in the evidence to show that she was leaking to such an extent as to sink her; from the statement of the first officer the Court found that the ship had made 2″ of water from 8 P.M. to 11 P.M. of the 21st, which they did not consider unusual in heavy weather; the crew were ordered to the pumps which they refused to work. It seemed that the master was unable to sound the well after the last soundings were obtained at 11 P.M., so that nothing was known from that time till 4 A.M. of the 22nd, the time of the disaster, what water had accumulated in her hold. The master seemed to have been under the impression, some time before the catastrophe occurred, that she was settling down and sinking. It would have been very difficult in a gale of this description to place any confidence in the appearance of a vessel lying buried in the trough of the sea to know whether she had any large quantity of water in her hold; it was only before making the last plunge, when she righted, that an estimate of her condition could be formed, as previously to that she was lying with her decks in the water. After a careful consideration of the evidence in this matter, the Court were of opinion that the water found its way into the hold through some of the ventilators and openings on the lee side of the deck which was under water for a considerable period; and that all openings for ventilation had been properly secured before leaving Calcutta, but it amounted almost to a certainty that some of the openings were smashed by heavy seas, through which water entered

into the hold. This the Court surmised was the chief cause of the vessel foundering. They recorded that no blame whatever was attached to the master or officers for the loss of the *Merchantman*, and also desired it to be known that the ships *Merchantman* and *British Statesman* have been employed for several years in carrying native emigrants, and that for the sake of ventilation a great many places in their decks had to be cut open to admit ventilators. This, in a vessel of light draught conveying coolies, may not be attended with any danger; but when these same vessels were employed carrying a complete cargo and fully laden, then those openings became a source of great danger to the ship when she met with bad weather. The expense incurred in closing up all those places when the vessel carried a full cargo, only to be re-constructed the next time the ship was chartered as a *coolie vessel* would tend to prevent the work being thoroughly and effectively done by the ship-master responsible for the discharge of this portion of his duty.]

61. The British wooden barque TEWKESBURY [of Liverpool, 1,088 tons register, official number 45724, age 21 years, classed originally A. I. at Lloyds for 4 years and continued from time to time on that letter up to 1879, when her term of years expired, since which she had not been restored], from False Point to The Mauritius, with a cargo of 1,930 tons of rice, valued at ₹1,48,617. On the morning of the 21st September the barque was lying at single anchor in the roadstead of False Point (Orissa coast), having loaded a full cargo of rice. At 1 A.M. on that day there was a moderate N. E. breeze and a slightly falling barometer; at 9 A.M. the master went on shore at Hookeytola with the boatswain and 4 of the crew to clear the vessel at the Custom-house, and at 12 P.M. the boat returned without the master; the master before despatching the boat left orders for her to return for him not later than 4 P.M.; the vessel was waiting for a fresh supply of water from Hookeytola for the consumption of the crew, and as soon as she got the water, and the master came on board, it was intended to start. A little after 1 P.M. a strong breeze sprang up, when the first officer sent the life-boat in charge of the boatswain, manned by 4 lascars. At 5 P.M. the wind increasing with squalls from the N.E. the second anchor was dropped with 120 fathoms on the port chain and 90 fathoms on the starboard. On the 22nd, at 1 A.M., the wind was blowing a hard cyclone, and all the sails were blown out of the gaskets; at 5 A.M. the fore-top, maintopgallant, and the mizentopmasts were blown over the side; the hurricane ceased for twenty minutes, the weather being at the time a dead calm, and then it suddenly sprung up with renewed force from the S.W., with a fearful heavy sea breaking all over the barque and making it impossible to see any distance ahead. At 6 A.M. the foremast went by the board falling on the port rail, but so great was the force of the wind that it was blown clear over to starboard; the vessel bumped heavily for half an hour in 4 fathoms of water with about 12′ swell, and then drove into 6 fathoms of water clear, where she held on between Luff and Temple points. Soon after the mainmast fell nearly fore and aft, breaking 6′ above the deck, followed in a few minutes by the mizenmast. During that time the floating wreckage about the deck broke the battens off the hatches and a large quantity of water in consequence got down, but with the least possible delay they were cleared, covered, and battened down again, and as a great deal of water had got into the hold the pumps were started, but though they were kept going during the remainder of the day the soundings in the wells remained the same. The next day the hands were employed variously pumping and clearing away as much of the cargo as possible; all the boats being stove in nothing farther could then be done. The small boat was lowered to send on shore to get assistance, but as the boat began to fill it was put back directly; up to that moment nothing had been heard either of the master or the boat's

crew. On the 24th the crew employed at the pumps; the first officer left the barque in a small boat with 4 hands to seek for tidings of the master and also to communicate to the Calcutta Agents the condition of the vessel. On the same afternoon the men launched the boat, and on being questioned why they had done it, they said that they were going on board the barque *Choice,* which vessel had arrived in the harbour that day. As they would not be persuaded to remain, the second officer gathered together the vessel's papers, took charge of the boat, and went on board the *Choice,* the crew fearing that the damp rice would swell and burst the *Tewkesbury;* upon seeing the first officer returning he was hailed, and he also boarded the *Choice.* On the same day the first officer proceeded to the *Tewkesbury* in one of the *Choice's* boats, the first officer of the latter vessel accompanying him; the boat returned with the first officer of the *Tewkesbury.* On the 25th the second officer visited the barque with the crew, and remained on board till 7 P.M., when both he and the first officer returned to the *Choice.* Before the officers left, they observed the crew packing up provisions to go on shore; when the officers left, the men were still engaged at it; the first officer went to Hookeytola during the day, but returned and slept on board the *Choice.* At daylight of the 26th the Government steamer *Undaunted* was sighted, when the first officer of the *Tewkesbury* left the *Choice* to go on board and ask for assistance, but was told the vessel would first have to go and see the condition of the harbour; the first officer of the *Undaunted* boarded the *Choice* the same afternoon and remained till the steamer returned after looking at the harbour; the first officer did not return from the *Tewkesbury* on that day but slept on board. On the forenoon of the 27th he went on board the *Choice* and a consultation was held, which resulted in the second officer going on board the *Undaunted* to ascertain whether he could borrow any tools or boats for the *Tewkesbury,* and was promised them the next day. On the second officer's return to the *Choice* he found that it was arranged that the first officer was to go to Calcutta in the British India Company's steam-ship *Goa,* which he did an hour after. On the 28th, at 6 A.M., the second officer boarded the *Tewkesbury* with the crew and commenced to work; during the day three officers from the *Undaunted* went on board and assisted in clearing the wreck; whilst doing so they discovered the port chain unshackled in the middle turn of the windlass with the devil's claw on the chain which was slack. They wondered who could have done it, and at once made it fast with a piece of Europe rope through the shackle and round the towing bitts; they left the vessel at 5 P.M., and visited the *Choice.* The next day the second officer returned to the barque to work and remained on board. On the arrival of the first officer at town (Calcutta) late on the afternoon of the 28th, he reported the helpless condition of the vessel to the Agents, who thereupon despatched their Marine Superintendent, together with another officer, to the scene of the accident in the steam-tug *Cyclone,* (the first officer did not return) which vessel was proceeding to the assistance of the steamer *Booldana* ashore at False Point harbour. On the 30th the crew hove up the starboard chain without the anchor and then hove up the port anchor, but subsequently anchored again to leeward of the previous position. On the 1st October there was clear weather with a light breeze; they hove up the anchor and were towed by the *Undaunted* into the harbour, where they came to with the port anchor and 30 fathoms of chain in $4\frac{1}{2}$ fathoms of water near the Fairway buoy. The *Cyclone* arrived from Calcutta on the 3rd with coolies, and the following day the barque was surveyed by the Marine Superintendent of the British India Company and in the employ of the Agents, the master of the steamer *Booldana,* and the master and first officer of the tug *Cyclone;* the pumps were properly attended to during the day, and all hands were employed during the latter part of the day in getting ready for putting a spare anchor over the bows and otherwise clearing away the wreck of the foremast. They reported

that they proceeded on board the vessel lying in the Outer harbour of False Point almost abandoned, the crew having left her at night, being afraid she would go down at her anchor, and were staying on board the *Choice;* and after careful survey found that the three lower masts of the *Tewkesbury* were gone by the deck, the wreck of the fore and mainmasts lying on deck, 3′ 8″ of water in the hold, and was settling down gradually, and the barque making nearly $1\frac{1}{2}$″ of water per hour; but taking into consideration the present forsaken state of the harbour, the dangerous position and condition of the vessel, the utter absence of labour, and of a suitable place to land and store the cargo, as well as the small chance of finding buyers for either the barque or the cargo, they recommended that the best arrangement for all concerned was that the vessel should be towed to Calcutta without delay, and farther advised that the damaged rice be jettisoned in order to lighten the barque and make her safe for towing. Furthermore, it appeared to the Surveyors that, with the cargo on board, her great age, the very severe battening she had had, and her shattered condition, the vessel would eventually prove to be not worth repairing and would be condemned and sold for the benefit of all concerned. On the 5th the crew were employed in rigging a jury foremast and attending to the pumps, and a gang of extra lascars, obtained from the *Cyclone*, were employed in jettisoning part of the damaged rice (about 400 bags) from under the square of the main and after hatches. After which they got the vessel pumped out and nailed pieces of canvas over several of the channel bolts which were drawn, to render her fit for towing, and generally were engaged clearing and preparing for towage to Calcutta, the pumps being carefully attended to. On the 6th, at 4-45 A.M., the *Tewkesbury* received hawsers from the tug *Cyclone,* and at 6-30 A.M. they weighed and proceeded towards Calcutta in tow, and eventually on the 9th she was moored to swinging moorings abreast Hastings in the Hooghly river. The barque was surveyed by a certified surveyor on the next day, who found her a complete wreck, and advised the rapid discharge of her cargo and the separation of the sound portion from the damaged when he would have a fair view of the vessel, and would be able to report on her more fully. She soon afterwards commenced discharging her cargo, which was stored in sheds at Shalimar point; the discharge being completed on the 25th. She was also examined by Marine Surveyors, who, after giving a long catalogue of damage and loss sustained in the cyclone, declared that her repairs would cost more than her value after the repairs were completed, and advised that she be sold by public auction as a constructive total loss. On the mornings of the 21st October, 2nd, 3rd and 6th November the Surveyor to Lloyds' Agents proceeded on board the barque *Tewkesbury*, lying dismasted at the swinging buoy off Shalimar in the Hooghly river, in order to make a careful survey of the damage sustained by that vessel during a cyclone which occurred whilst lying at anchor at False Point harbour with a cargo of rice. After a careful examination the Surveyor reported that there were many minor defects to make good, besides the whole of the spars to be replaced. The vessel was reported to have made no water since she arrived up to town (Calcutta); the water she made at False Point after the cyclone had, in the opinion of the Surveyors, issued through the chain plate bolt holes when she was loaded and probably through the bow ports, there being four timber ports forward in which the oakum had started. Although the hull did not sustain any serious damage, shippers and surveyors of local Insurance Offices, who would have to recommend insurance on her cargo, would not have confidence in the barque unless she was put into dry dock and the metal sheathing stripped off and thoroughly caulked throughout and re-metalled, and in the opinion of Lloyds' Surveyor, that must be done in consequence of the severity of the cyclone she encountered at False Point. Being an old vessel, it would be desirable, whilst in dock, to put some extra fastenings into her, and no doubt the local surveyors before recommending a risk on any cargo she might take

would insist on extra fastenings, and the Lloyds' Surveyor advised that 50 or 60 cwt. of extra iron bolts be put in where the surveyors might hereafter recommend; the repairs advised would put the *Tewkesbury* in fully as a good a condition as she was before the cyclone, and would be sufficient to restore her to the confidence of shippers, and enable her to carry a perishable cargo, provided she was otherwise sound, but her keelsons and two main hatch beams of the upper deck being defective from decay, would have to be taken out and replaced with new ones; the whole of the topgallant rails on both sides, and the covering board and quick work on the forecastle abaft the catheads, were quite decayed, and required to be changed. The Surveyor was of opinion that the cost of those repairs, together with the cost of the repairs of the damage done by the cyclone, would far exceed the value of the barque when completed. The *Tewkesbury* was subsequently abandoned as a total wreck, and the hull, together with the stores, were sold by public auction at Calcutta on the 21st November for the sum of R5,660, when she was broken up by the purchasers. Some 431 bags of rice were jettisoned at False Point harbour during and after the cyclone, and the remainder brought to Calcutta in the vessel, where it was discharged and landed at Shalimar; 5,043 bags, which were landed in damaged condition, were sold by auction and realized R9,992, and 15,757 bags were forwarded to The Mauritius by another vessel. Original value of the barque *Tewkesbury*, £4,000; cargo partially lost and damaged, value R28,426. The crew, 22 men; the master, boatswain and four of the crew were swept away and drowned when the Custom-house on Dowdeswell island was washed away by the cyclonic storm-wave.

[A Special Court of Inqury was held in the office of the Port Officer, Calcutta, by the Officiating Chief Presidency Magistrate on the 29th and 31st October, and 2nd, 4th, 5th, 6th and 7th November, under the provisions of sections 7 and 9 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances connected with the stranding of the above vessel. The Court recorded that, having assembled pursuant to citation, the papers and correspondence relating to the case were read and filed, when the Government Prosecutor opened the case briefly, after which they proceeded to hear the evidence. The Court first made a preliminary investigation under section 7 of the above Act, taking the evidence of the Commander and first officer of the Government steamer *Undaunted*, and the first, second, and third officers of the barque *Tewkesbury*, and of others whose evidence appeared to be material. At the termination of the inquiry the President and members of the Court considered there were grounds for charging the first officer on the evidence before them, and after a consideration extending over two hours, they reported that during the progress of the investigation it became apparent that the action of the first officer of the *Tewkesbury* in, as he himself informed the Court, unshackling the chain of the port anchor on which the vessel was at that time riding on the morning of the 27th, might in all probability raise a question of gross misconduct on his part of a sufficiently grave nature to necessitate an inquiry under section 9 of the above Act. This supposition was strengthened by the farther evidence taken as the investigation proceeded, and the Court after due deliberation decided to formulate the following charge against him:—That he, the said first officer on, or about, the morning of the 27th September, was guilty of an act of gross misconduct, in that he, without lawful excuse, did unshackle the port chain cable by which the said barque *Tewkesbury* was at that time riding in False Point harbour, knowing it to be likely that he by such act would thereby destroy or render unsafe the said vessel. A copy of the statement of the grounds upon which such charge was framed, and of the charge itself, together with copies of such papers as accompanied the Resolution received from the Local Government ordering the Court, was then handed to the accused, and the

Court adjourned for the trial of the charge until the 5th November. The Court re-assembled on that day for the purpose of prosecuting the inquiry into the conduct of the first officer; and, under section 13 of the above Act, appointed as their assessors, for the purpose of this investigation, the masters of the ships *Falstaff* and *Copley* who had been in command of vessels for several years. On the Court re-assembling on the 6th, the evidence given by the first officer in the preliminary investigation was tendered by the Government Prosecutor, and after having been read by him was admitted by the Court. The witnesses for the prosecution were then examined, and on conclusion of their statements farther proceedings were adjourned to the 7th, in order that the Court might deliver their judgment. The accused was present in Court during the whole of the proceedings, and had full opportunity of cross-examining the witnesses called by the prosecution and of making a defence. He called no witnesses and put no question. On the assembling of the Court on the 7th, the accused being present, the Court's report was read by the President; the opinion of the assessors was then read and recorded, after which judgment was delivered by the President. The Court recorded that the barque *Tewkesbury* was lying at False Point harbour ready for sea, loaded with a full cargo of rice and bound for The Mauritius; she had a crew of 22 all told—ten natives, the rest Europeans; she drew 21′ 1″ aft and 19′ 11″ forward. On the 21st September the master went on shore to the Custom-house at Hookeytola (on Dowdeswell island) to get the vessel's papers previous to sailing. The master remained on shore, but the boat returned to the barque with orders that it should be sent for the master at 4 P.M. that day. The breeze had then freshened and the life-boat was sent for the master manned by four lascars and the boatswain in charge. Shortly after the life-boat left the wind increased to a gale, which continued till daybreak the next morning. On the morning of the 22nd the gale blew with hurricane force, the first officer then let go a second anchor, but shortly after daylight the foretopmast blew away, the maintopgallantmast and the mizentopmast went also. Suddenly there was a lull for some 20 minutes duration in the cyclone, and the barometer fell to 26·93. The wind which had been blowing from the N.E. then began to rage with equal fury from the S.W., the mainmast went by the board, and the barque, labouring heavily, shipped large quantities of water on deck; the mizenmast followed the mainmast overboard, and directly afterwards the foremast went also. At 10 A.M. the wind moderated and a cast of the lead was taken, when it was found that the vessel, which had been dragging her anchors, had drifted into 6 fathoms of water. The well was sounded and a depth of 2½′ of water was found by the carpenter; the barque was then pumped for half an hour in the morning, and again for half an hour that same evening. On the 23rd an attempt was made to send the second officer on shore with a boat's crew to obtain information, but the boat chosen for that purpose leaking badly, the attempt was abandoned, and the rest of the day the crew were occupied in repairing the boat, together with another also damaged, which was lying on the deck-house. At 8 A.M., on the 24th, the first officer left the vessel in one of the repaired boats with one European and a lascar crew for the purpose of looking for, or obtaining information about the missing six men—the master, and his boat's crew. On reaching Hookeytola the first officer found the master of the French barque *Neustrie* on shore, but failed to find either his master or the crew on the island, and on being informed that a heavy tidal wave had swept over the station of Hookeytola (situated on Dowdeswell island), drowning many people, he returned to the *Tewkesbury*. On the way to his vessel he was hailed by the second officer from the barque *Choice*, which vessel had arrived in the harbour that day; and was informed by the second officer that the vessel had been deserted by all hands during his absence, as apprehensions existed of her breaking up, whereupon the

first officer returned to the *Tewkesbury* and remained alone on board the whole of that night. During the night the first officer made an attempt to cut the starboard chain cable, but only succeeded in partially working through one of the links. His explanation for doing so was that he was satisfied that the starboard anchor had parted from its cable (an impression which was afterwards justified by the fact that the anchor had gone), and being apprehensive of the starboard chain twisting itself round the port chain, and thereby fouling the anchor the vessel was riding on, he deemed it necessary to slip the starboard chain of 45 fathoms altogether. The whole of the crew returned to the barque on the morning of the 25th, but only remained long enough to get their private effects together, and the *Tewkesbury* was again deserted, some of the crew going on shore and others remaining on the *Choice*. The first officer went again ashore, where he had an interview with the European light-house keeper, who reported that no news had been received of the master or the boat's crew: the body of the master was eventually found and duly identified, and it was clear hat he, his boatswain and the lascar crew were drowned together when the tidal-wave swept over the harbour. Thereupon he returned to the *Choice* and slept on board that vessel, and early the next morning, the 26th, the Government steamer *Undaunted* appeared, and her officers boarded the *Tewkesbury*, but returned to their steamer shortly afterwards. On entering the harbour of False Point the *Undaunted* was boarded by the first officer who applied for assistance, whereupon the commander informed him that his first duty was to look for the missing men of the foundered ship *Merchantman* and her master, and also to replace the missing buoys; but she returned from her expedition that same evening. It was ultimately decided to send the first officer up to Calcutta ostensibly to obtain assistance, but he was not apprised of that determination on that day. On the night of the 26th the first officer returned to the *Tewkesbury* and stayed there alone all night, and at daybreak on the 27th he unshackled the port chain cable by which the barque was riding at the time, with the intention of letting the vessel drive ashore, timing that act so as to take advantage of the wind and current to help towards effecting his object; before unshackling the cable the first officer hung the chain with a Manila line before the windlass. At daylight a boat came off for him from the *Choice*, and he went to that vessel, where he met the commander of the *Undaunted* and the light-house keeper, who advised him to go to Calcutta for assistance. After some demur the first officer was persuaded to go on board the British India Steam Navigation Company's steamer *Goa* as a passenger to Calcutta, and left at 4 P.M., and he did not rejoin the vessel till she was towed to Calcutta on the 9th October by the steam-tug *Cyclone*. The first officer having left, the crew under the charge of the second officer, returned on board the *Tewkesbury* and set to work, with occasional assistance from the officers and crew of the *Undaunted*, to clear the wreckage lumbering the deck, and also to pump the water out of the vessel. The crew remained on board the barque under charge of the second officer, working and clearing wreckage and pumping her occasionally, there being no visible increase of water in the night. On the 1st October the *Tewkesbury* was towed farther into the harbour by the *Undaunted* where she remained at anchor till towed up to Calcutta by the tug *Cyclone*. The Court after maturely considering the evidence in this case were of opinion that the barque *Tewkesbury* was, on the 22nd September, exposed to a cyclone of unusual severity, which totally dismasted her and caused her to drag her anchors a considerable distance, the seas breaking over her at times; the tarpaulins over the hatches were washed away, and the water found its way through the hatchways before they could be again secured in their places. During the continuance of the cyclone the officers and crew found it impossible to perform any effectual service for the vessel until the wind and sea moderated; the hatches

were secured with praiseworthy promptitude directly the weather permitted the performance of that duty. The Court, however, were very far from being satisfied that proper attempts were made to pump out the vessel. The evidence on that point was contradictory, but on the whole they arrived at the conclusion that the officers and men accepted too readily the belief that the *Tewkesbury* was beyond assistance, and that the existence of that belief contributed towards the lax and unsatisfactory attempts made to get the water out of the barque. It was apparent that a steady persistence in working the pumps would have resulted in getting the water out of the vessel and thereby prevented serious damage occurring to the cargo of the barque. The Court also were of opinion that the *Tewkesbury* was prematurely, and, as it happened, quite unnecessarily deserted by the crew on the 24th—a fact which was apparent from circumstances that the vessel had made only 3″ of water during the absence of the crew, which extended over four days. The Court observed that the action of the first officer in connection with his attempt to let the barque drive ashore formed the subject of a subsequent Inquiry; but considered that both the first and second officers of the *Tewkesbury* were to some extent blameable for the lax state of discipline indicated in the conduct of the crew during the period immediately succeeding the termination of the cyclone. The Court remarked that it was, however, but fair to add that the second officer was suffering at the time from a severe attack of fever, and possibly, therefore, not in a position to enforce his orders on board. The Court observedthat the first officer of the barque *Tewkesbury* was charged with an act of gross misconduct in that he, on the morning of the 27th September, without lawful excuse, did unshackle the port chain cable by which the vessel was at that time riding, knowing it to be likely that he by such act would thereby destroy or render unsafe the said barque. The first officer in his evidence given before the Court admitted that he did so unshackle the port chain in the manner and at the time indicated in the charge. The Court was, therefore, relieved from the necessity of considering the facts which tended to associate the first officer with the commission of the act; the only point left for determination by the Court was whether, as contended by him, he was justified in his attempt to let the *Tewkesbury* drift ashore. The excuse put forward in defence was that the first officer at the time was conscientiously of opinion that the vessel was in a hopeless condition, and whilst impressed with that view, he had a conversation with the European light-house keeper at False Point harbour, and at that time was the Officiating Port Officer, which indicated clearly that that official held similarly gloomy views about the vessel as those entertained by the first officer. The light-house keeper, moreover, as alleged by the first officer, strongly urged upon him the necessity of getting his barque out of the roadway, being apparently anxious to prevent the *Tewkesbury*, should she sink, becoming a source of danger and anxiety to vessels entering or leaving port. The Court observed that the light-house keeper had not been examined, so it was impossible to state what in reality was the precise nature of the conversation which took place between him and the first officer; but even on the version of the conversation as related by the first officer, it was quite possible to arrive at the conclusion that the anxiety which the Officiating Port Officer might naturally have displayed to get a dismasted vessel out of the roadstead did not in reality call forth the suggestion that he should slip his cable and let the barque drive ashore. Even, however, on the supposition that the Officiating Port Officer had urged upon the first officer the commission of the act, the Court were clearly of opinion that he would have been equally guilty of an act of gross misconduct in acting upon such suggestion. There were, however, incidents in the evidence given by the first officer which made it difficult for the Court to accept unreservedly everything related by him. The Court, for instance, arrived distinctly

to the conclusion that the first officer did not, as asserted by him, attach the devil's claw to the chain previous to setting himself to the task of unshackling the chain. His explanation of that part of the case in the few remarks he made to the Court were not satisfactory, and left the Court unconvinced of the truth of his assertion. The Court on the statement made by him and the evidence of the case were clearly of opinion that he committed the act charged against him, having no legitimate excuse for his offence. The Court observed that the Nautical assessors were of opinion that no blame attached to anybody during the cyclone, as the barque was dismasted by the violence of the weather, but afterwards the conduct of the first officer seemed to have been at fault in two or three instances which appeared in the evidence, and in the opinion of the Nautical assessors he committed a gross act of misconduct on the morning of the 27th September, in that he unshackled the port chain by which the vessel was riding for the purpose of letting her drift ashore. The first officer seemed to have been influenced in his motive by the light-house keeper at False Point harbour; but notwithstanding there were several masters of vessels in the vicinity, and the services of the Government steamer *Undaunted* available, he omitted to consult any one of them as to the advisability of his action, and proceeded to Calcutta in the steamer *Goa* that same day without even mentioning the condition in which he left the barque, that is, hanging to two parts of a 3″ Manila rope bent to the cable. The Nautical assessors observed that although they had previously stated that the first officer had committed a gross act of misconduct, they wished it to be considered by the Court that he was placed in a very difficult position, as the master had been drowned, and he had only just joined the *Tewkesbury*. The Court recorded that in considering the nature of the punishment to be inflicted upon the accused, taking into consideration the fact that the first officer had but recently joined the barque *Tewkesbury*; that he was still a comparative stranger on board; that at a moment's notice a set of adverse circumstances threw him into a position of great responsibility during a time of great danger; at the same time the Court could not overlook the fact that the accused had deliberately committed an act which would only be justified under most exceptional circumstances; that he had opportunities of obtaining the advice and assistance of his brother-seamen older in service and senior in standing who, in charge of various vessels in the harbour, were all within reach; and that he never availed himself of that opportunity. Moreover, that he after repenting of his purpose left the barque riding to an anchor secured to its chain by the frail support of a small Manila line; that he omitted the next day to inform either his own officers or the officers of the *Undaunted* of his attempt, but carried his secret with him on board the *Goa*. The Court observed that it was difficult to estimate what would have been the consequence to the crew of the *Tewkesbury* who went on board on the morning of the 28th (and were actually ten hours on board the barque before the state of the cable was discovered had the wind freshened and a slightly additional strain fallen on the slender rope on which, in fact, the vessel was riding all the while. Some of the evidence given in the case tended to show that the accused was given to habits of intemperance; but the Court, however, did not place much credence in the evidence given of that habit by the vessel's carpenter. It might have been true that the accused occasionally indulged in a glass of spirits, but the evidence of his own officer and that of the first officer of the *Undaunted* went to show that he was never seen intoxicated during the week which succeeded the cyclone. The Court, in consideration of the various aspects of the case, and under the powers reserved to it under the above Act, ordered that the certificate of competency granted by the British Board of Trade to the said first officer be suspended for a period of twelve months, such period of suspension to commence from the 26th September, the date on which the offence was committed.]

62. The French wooden barque NEUSTRIE [of Havre, 757 tons register, official number not reported, age 12 years, classed at French Veritas A.I.], from False Point to The Mauritius, with a cargo of rice. On the 21st September the barque was lying in False Point harbour (Orissa coast), with one anchor down, in 4 fathoms of water a quarter of a mile N.E. of Plowden's island, and was loading a cargo of rice for The Mauritius, and up to that time she had loaded only a part of her cargo, *viz.*, 370 tons. On that day she had shipped rice up to noon, and at about 4-30 o'clock in the afternoon the weather began to assume a threatening appearance, the sea began to rise, the wind blowing from the N.E. in strong puffs, with a heavy overcast sky, and heavy banks of clouds rolling up from the same quarter. The master ordered the cargo boats to put off and dropped the second anchor. At 8 P.M. the wind became stronger and the squalls heavier and more frequent, until between 1 and 2 A.M. of the 22nd, the wind still blowing from the N.E. increased to a gale with very heavy gusts. At midnight the crew veered 4 shackles to each chain. At 4 A.M. it was blowing a hurricane from the North and the squalls were terrific, with blinding sheets of rain, and the barometer falling rapidly. At 6-15 A.M. the wind hauled a little to the North; the signal flagstaff at the top of False Point light-house carried away just above the cap at that time, and lifted the stone step in which it stood right out of its bed. At 6-30 A.M. the wind blew from the N.W., it suddenly lulled and became almost calm, hauling to the westward. At 6-50 A.M. the wind was at W.S.W., and blowing with greater force than ever, and the gusts most terrific; the lowest reading of the barometer 27·22 was taken at that time. At 7 A.M. the wind and weather still the same; the foretopmast was carried away and one boat damaged and destroyed. The tidal wave or water rose about 15′ in height, when the starboard chain parted at 90 fathoms; the anchor was carried away, and the crew were quite powerless to do anything on account of the rush of water and the force of the wind; the vessel dragged on shore at Plowden's beacon. She was lying on the sands beaten by the wind and seas; the seams opened out, and the holds filled with water; soon afterwards the sea covered the barque and opened the hatches; the force of the wind prevented the crew from closing them immediately; the mizentopmast and the maintopgallantmast carried away, boats destroyed, jibboom broken, and the rudder unshipped. At 8 A.M. the weather began to moderate a little, and the barometer rose rapidly until 10 A.M., when the wind had moderated to a gale from the S.W.; at noon it blew a fresh breeze with squalls. At daylight on the 23rd found vessel had been wrecked 3 miles N.N.E. of False Point light-house. The commander of the *Undaunted*, which vessel was despatched in search of the missing crew of the ship *Merchantman*, reported that on entering False Point harbour on the 27th September he passed the ship *Tewkesbury*, dismasted and deserted. The centre of the cyclone had passed directly over the harbour, wrecking Hookeytola; the *Neustric* was in a very bad condition, making water to such an extent that it was rising in the vessel's hold with the rise of the tide, which was not more than 4′ or 5′ at high-water; she was stranded far up the harbour, and her bottom seriously damaged; the rudder was also out of place, and apparently the lower gudgeon or woodlock had broken; the main and mizenmasts had settled down about 6″ and the decks had risen in several places; and it was believed that if ever the barque were to be floated (which was most improbable), she could not be made seaworthy owing to her having been considerably strained. The *Undaunted* cruised about near the spot where the *Merchantman* went down, but saw nothing of the survivors. It is recorded in the Meteorological Report for Bengal that at 4 P.M. observations of the stations on the 21st at the head of the Bay of Bengal and along the West coast showed clearly that a storm was approaching the West coast to the South of False Point harbour, and orders were issued shortly after midnight

to hoist the storm signals at the several stations in the Hooghly river, warning the shipping that a cyclonic storm would cross the coast to the South of a line joining Chittagong and False Point. The exact position of the centre of the storm at 10 A.M. of the 21st was a little doubtful, but it was probably between the latitudes of 17° and 18°, and longitudes 87° and 88°, and it advanced with very great rapidity in a N.W. direction, for, on the morning of the next day (the 22nd), the centre was a little distance to the South of False Point harbour whence it advanced inland, the centre passing near Katak, and thence through Chútia Nagpur; and on the morning of the 23rd the centre of the storm was apparently not very far from Dehree in South Behar district. This represented a movement of about 350 miles in the 24 hours, from 10 A.M. on the 22nd to 10 A.M. on the 23rd. With the advance of the storm to the North of False Point a second signal was hoisted at the stations in the Hooghly river, showing that the storm was passing to the North of False Point; and on the following morning as the cyclone had advanced well inland, the storm signals were lowered. The barometric depression accompanying the advance of this small cyclone was very considerable; on the morning of the 22nd the fall of the barometer was 0·539″ during the previous 24 hours, and the pressure recorded only 29·23″. This was a very low pressure, and might be looked on as a measure of the intensity of the storm; and if other evidence were wanting, it would prove that the cyclone, though in reality a small one, was very fierce and intense. The winds accompanying the small cyclone were undoubtedly very fierce, as the velocity at 10 P.M. on the 21st was 38 miles per hour, and that shown at 4 P.M. on Saugor island 58 miles per hour. Saugor island too, it would be seen, was at a very considerable distance from the centre of the storm, in all probability the centre of the storm never being nearer than about 100 miles to that station. The rainfall which accompanied this small cyclone near its centre, though undoubtedly very heavy, did not appear to have been quite as heavy as was usually the case with such a violent storm. The cyclonic storm-wave which swept over the Reddie point, Dowdeswell island, Plowden's island, and Jumbo river had so changed their aspect that they were hardly to be recognized. It was estimated that, from certain observations made on the spot, the storm-wave must have been some 15′ to 18′ in height; all the houses on Dowdeswell island, together with the inhabitants, were all drowned: some 500 villages had been entirely swept away, and it was estimated that the loss of life was very great. The *Neustrie* was insured for 100,000 francs (£4,000), which sum was presumed to be her full value. Loss, value of cargo, ₹80,000. The barque's hull, with masts, spars and sails, were sold by auction at Calcutta, on the 9th November and realized ₹11,400; the cargo was all more or less destroyed, and was sold for ₹2,200; the vessel's stores fetched ₹2,400. The crew 15 men; one life lost.

The Port Officer of Calcutta recorded that the loss of the *Neustrie* was due to stress of weather, and neither the master nor the officers or crew of the vessel was to blame in the matter, as all appeared to have done their best to save the barque from destruction.

(No Court of Inquiry was held; the Lieutenant-Governor of Bengal observed that there was in this case no need to order an investigation, as it was known that the disaster was caused by a severe cyclonic storm-wave.

63. The British Indian wooden brig SRI LETCHEMY NURSIMASWAMI [of Masulipatam, 150 tons register, official number not known, age 13 years], from Masulipatam to Calcutta, with a cargo of chillies and coriander and castor-oil seeds. On the 22nd September at 6 A.M., whilst lying at anchor at False Point harbour (Orissa coast), the brig encountered a fearful cyclone, and having dragged her anchors, was washed up on the beach to the northward of Temple tree, the masts, sails, and rigging were all carried away, and at 8 A.M., owing to the

heavy storm-wave which swept over the harbour, she broke up. Original value of brig, ₹5,000; cargo, ₹8,000. The crew, 16 men; 5 men were lost, and the remaining 11 men were saved by being washed on Plowden's island.

64. The British Indian dhoney SREE RAMULOO [of Masulipatam, 36 tons register, official number not reported, age 20 years], from Báruva to Balasore, with a cargo of cocoanut oil and 15,700 cocoanuts valued at ₹1,000. On the 22nd September, at 6-30 A.M., whilst lying at anchor at False Point harbour (Orissa coast), the dhoney experienced a terrible cyclone, and having dragged her anchors, was washed up on the beach to the northward of Temple tree, the mast, sails, &c., were carried away, and at 8 A.M., owing to the heavy storm-wave which swept over the harbour, she broke up. Loss, value of dhoney, ₹2,000; cargo, worth ₹250 was lost, and the remainder was saved. The crew, 8 men, saved themselves by landing on the beach on pieces of the wreckage.

65. The Native ganja FUTTEHSALAM [of Cutch Mándvi, 40 tons register, official number 1189, supposed to have been an old vessel], from Cochin to Sirgando with a cargo of paddy. The ganja sailed from Cochin and proceeded all right, nothing of importance occurring on the voyage. On the 22nd September, when off the Hajamra mouth of the river Indus (Sind coast), she sprung a leak, owing to the vessel being very old. She began making water very fast, but as there were no means on board to pump it out, she was almost filled with water before she could reach Sirgando, so the tindal ran her ashore outside the creek, and she became a total wreck. Estimated loss of ganja, ₹3,000; cargo all lost, value ₹1,175. The crew, 15 men, were saved by the battalla *Salamati*.

66. The British iron barque STAR OF ALBION [of Belfast, 999 tons register, official number 49713, age 21 years, classed at Lloyds,* A. I.], from Cardiff to Calcutta, with a cargo of 1,546 tons coals. The barque left Cardiff on the 18th June, laden with a full cargo of National large steam coals, bound for Calcutta. There were on board a copy of Messrs. Imray's chart of the Bay of Bengal, besides the Admiralty chart of the Sandheads; also an edition of Heckford's book of directions, corrected up to August 1883; there were five compasses, and the course was set by the standard compass which was corrected in May 1885 in the port of Hamburg; there was no deviation card, and the deviation was found every week by azimuth or amplitude. There were three chronometers on board, and they were all in good order, and were last rated with the ship *Cabul* on the 10th September, as the master saw no land after the vessel passed Scilly till he sighted the Saugor island light-house; but he found no reason to distrust them. There were four boats in good order; she had on board three bower anchors and a spare anchor, all about the same size; one stream anchor and two kedges; and she was properly equipped. All went well with the barque up to the 24th September. At noon of that day her position by observation was latitude 19° 59′ N., longitude 88° 24′ E., and the course then steered by the standard compass was N. by W. ¼ W., the deviation being nearly 7° easterly. Sights were taken every morning for the longitude and at noon for the latitude; the master took the sights and the first officer the time, and they afterwards worked them out separately and compared the results. The master stated that at noon the Eastern Channel light-ship bore N. ¾ W. (true) distant 62 miles, and he then set the course N. by W. ¼ W. (true) and kept on that course till 8 P.M., when he altered it to N. ½ W. (true), and he laid down that bearing at the time on his chart of the Sandheads by the Admiralty; before that he was using Imray's chart of the Bay of Bengal. The course he set at noon was to shape a route for the position on the Admiralty chart of the Sandheads marked *Pilots' station*. The wind was light from S.W., the weather fine and clear, and the sea smooth; the vessel was carrying all sail at the time, and was proceeding from 3 to 4 knots an hour. At 6 P.M. the lead was cast and got no bottom, but at 8 P.M. found bottom at 55 fathoms, blue

mud, after which the course was altered to N. ½ W. (true); at 11 P.M. soundings were again taken and 35 fathoms blue mud found. At 2 o'clock on the morning of the 25th the soundings were 30 fathoms, blue mud; at 4 A.M. 27 fathoms; at 6 A.M. 17 fathoms, and at 8 A.M. (which was the last sounding taken) 20 fathoms were found, blue mud all the time. The master stated that owing to the wind being light he considered it unnecessary to take a cast of the lead again till noon. At 10 o'clock that morning the master saw a black buoy, surmounted by a pole, close on the starboard bow, and taking it for the South Channel buoy he altered the course to E. ¼ N. (true), expecting to find the Pilot brig by so steering; at 11-30 A.M. an apprentice was sent aloft, who reported several vessels on the port bow, one of which proved to be a light-ship about 5½ miles off a little abaft the port beam, but no sign of the Pilot brig; whereupon the first officer was ordered to get the anchor ready for coming to, when immediately afterwards the *Star of Albion* grounded on the Long Sands below Saugor (Sandheads). The barque still continued on the same course, and nothing was done to identify her position by bearings or soundings, and shortly after noon the disaster occurred. At that time it was the master's watch, there were two men (apprentices) on the look-out forward, a man at the wheel, and the first officer about the decks. The deep-sea lead was used, the master took all the soundings himself assisted by the first officer. Immediately after the vessel struck the ground the pumps were sounded, but she made no water, thereupon the whole of the crew were mustered and the boats got out; the second officer and some of the crew with a lead line were put in a boat to sound in the direction the vessel went ashore. Anchors were at once laid out with the aid of the boats, and attempts were made to kedge her off but unsuccessfully; the master thereupon clewed up the royal and topgallantsails, lowered the topsails and hauled the courses up, but she would not move; the crew then began to jettison cargo. After throwing overboard nearly 20 tons, endeavours were made at 8 P.M. on the flood-tide making with a second kedge with wire hawser attached, but without avail. Soon afterwards a swell came in and the barque began to thump very heavily on the sands and bilged; the carpenter on sounding the pump found 10″ of water, and at 10 P.M. there was 10′ in the hold; subsequently the vessel rapidly filled, the water reaching the deck, when it was considered unnecessary to jettison any more cargo. On the next morning (the 26th) the master went to the Long Sands light-ship in a boat in order to telegraph to Saugor, but found that impracticable. At 10 A.M. the steam-tug *Electric* and the Port Commissioners' steamer *Resolute* came alongside, and efforts to get her off were continued, but without success. The master thereupon went on board the *Electric* with a boat's crew and proceeded up to Calcutta to procure the assistance of tow boats and labour, and when off Saugor telegraphed to the Agents the position of the vesssl and for assistance. In the meantime the first, second, and the third officers, with the remainder of the crew, stayed on board till the 29th September, when they were taken off by the *Resolute*, and she was abandoned as a total wreck, as it was considered unsafe to remain, the mainhold being full of water. The master accounted for the disaster by the barque having overrun her distance and her being driven to westward by a strong current. He alleged that the change in the colour of the water was not sufficient to lead him to suspect that the vessel was in shallow water, and the wind being light and the current unusually strong, it did not strike him to anchor, as he thought he was in deep water. He consulted his book of directions, which recommended steering straight for the Pilot ground in the month of September, and would have steered for the Eastern Channel light-ship only in the N.E. monsoon. The first officer went on watch that night at 12 P.M. and received the course N. ½ W. (true). He stated that soundings were taken at midnight, at 2 A.M. the next morning, and at 4 A.M., and he assisted the master

in taking them; the lead was again cast when he went on watch at 8 A.M. and all soundings were correct. At 10 A.M., whilst the vessel was steering E. by N. by compass (E. ¼ N., true) going 2 knots an hour by the breeze, not counting the force of the tide, a light-ship was sighted 5½ miles off about three points on the port bow; the weather was then fine with light airs. At 4 A.M. on the day in question the first officer, before going below, requested the second officer to keep a good look-out for lights. The apprentice stated that directly he came on watch at midnight he was sent up to the fore royal yard to see whether he could sight any lights and not for any particular one but returned after twenty minutes and reported that he had seen nothing; it was a clear moon-light night, and the stars were out. The barque, it was subsequently reported, was fast disappearing, only her poop and forecastle being then visible. The hull of the vessel was sold by a public auction at Calcutta on the 3rd October for the sum of R1,300; the cargo of coals on board fetched the same sum. Original value of the barque *Star of Albion* £19,980; cargo, £30,920. The crew, 24 men. No lives lost.

[A Marine Court of Inquiry was held in the office of the Port Officer, Calcutta, by the Officiating Chief Presidency Magistrate, on the 9th, 13th, 14th; 15th, and 27th October, under the provisions of sections 7 and 9 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances attending the stranding and subsequent loss of the above barque on the Long Sands abreast Saugor island. The Court recorded that, having assembled pursuant to citation, the papers and correspondence relating to the case were read and filed and the official log-book and the master's chart handed into Court. The Court first made a preliminary investigation under section 7 of the Act, taking the evidence of the master, and during the course of that inquiry it appeared to the Court that there were sufficient grounds for framing charges against the master. The Court thereupon directed him to withdraw, and framed charges against him, charging him as follows:—(1), that the soundings alleged to have been taken by the said master himself at 4 A.M., at 6 A.M., and at 8 A.M., respectively, on the morning of the 25th September, were conducted in apparently so careless and unskilful a manner as to be utterly worthless in aiding the said master to fix his position at the various periods when such soundings were alleged to have been taken by him; (2), that the said master committed an act of culpable default, in that he omitted to take soundings—*first*, after 8 A.M. on the morning of the 25th September; and *secondly*, more particularly when he sighted and passed what the said master considered to be the South Channel buoy; and (3), that the said master having sighted the Long Sands and the Upper Gaspar light-ships half an hour before his vessel grounded, committed an act of culpable neglect in omitting to identify the said light-ships and by cross-bearings and soundings to verify his position. Copies of the statement of the grounds upon which the charges were framed and of the charges themselves were then handed to the accused. As it appeared that this investigation was likely to involve the consideration of the question as to the cancellation or suspension of the certificate of the master of the *Star of Albion*, they, under section 13 of the above Act, appointed, as their assessors, two persons having experience in the Merchant Service—the masters of the ship *Routenburn* and steam-ship *Patna*, and the Court adjourned for the trial of the charge until the 13th, when the Court sat *de die in diem* until the inquiry closed. On the 14th, after all the witnesses were called, sworn, and examined, the Government Prosecutor stated that he closed his case; the Court then adjourned to the 15th, in order to give time to the Solicitor on behalf of the accused to prepare an address. On the Court re-assembling on that day the Solicitor on behalf of the accused addressed the Court at some length, and the Court after about a quarter of an hour's deliberation unanimously found the accused guilty of all the three

charges. The accused was present in Court during the whole of the proceedings, and had full opportunity of cross-examining the witnesses called by the prosecution and of making a defence; they farther adjourned till the 27th, to consider their finding and order. The Court recorded that the barque *Star of Albion* left Cardiff on the 18th June, laden with a full cargo of coals, bound for Calcutta. Nothing unusual occurred during the passage until she reached the head of the Bay of Bengal. On the 24th September, at noon, the latitude by observation was found to be 19° 59′ N., and the longitude by chronometer 88° 24′ E. From that position the Eastern Channel light-ship bore N. ¾ W. (true), distant 62 miles; when the course was then set N. by W. ¼ W. (true), the master shaping his course for the position on the Admiralty chart of the Sandheads marked "Pilots' station"; the wind at the time was light from the S.W., the vessel going at the rate of from 3 to 4 knots an hour with all sails set. At 8 P.M. soundings were taken, and 55 fathoms, blue mud, found, and the course was altered to N. ½ W. (true). At 11 o'clock that night soundings were again taken and 35 fathoms, blue mud, found; at 2 A.M. on the 25th the soundings were 30 fathoms, blue mud; at 4 A.M. 27 fathoms; at 6 A.M. 17 fathoms; and at 8 A.M., that being the last sounding taken, 20 fathoms were found, blue mud all the time. At 10 o'clock a black buoy was sighted close on the starboard bow, which had a pole on it; the master taking the same for the South Channel buoy, altered his course to E. ¼ N. (true), expecting to find the pilot brig by so steering. An hour and a half afterwards an apprentice was sent aloft, and he reported several vessels on the port bow, one of which proved to be the Long Sands light-ship. The barque still continued on the same course, and nothing was done to identify her position by bearings or soundings, when shortly after noon the *Star of Albion* struck on the Long Sands; she was then going at the rate of 4 knots an hour with all sails set, and remained fast in that position. Efforts were made to get her off by jettisoning cargo and casting out kedge anchors, which proved of no avail. The next day (the 26th) she bumped very hard, stove in her bottom, filled with water, and on the 29th was abandoned as a total wreck. No lives were lost. The Court observed that in the statement made by the Solicitor, who appeared on behalf of the master, he practically admitted that his client was guilty on the two last of the three charges framed against him; he, however, took objection to the words *cross-bearings* on the third charge, on the ground that his client admitted to having sighted only one light-ship, and therefore taking cross-bearings were impossible. The evidence given in this case did not, in the Court's opinion, make it sufficiently clear that the master of the *Star of Albion* did sight two light-ships before his vessel took the ground, but there were however two light-ships in sight at the time, and it laid quite within the power of the accused to have satisfied himself of their identity if he had only exercised the most ordinary precaution. Even, however, on the supposition that the accused verified only one light-ship, he was clearly guilty of the offence charged against him on the third count, for it would have been quite as easy for him, with the aid of soundings and bearings taken in respect of the one light-ship in sight, to verify his position; this, for some unaccountable reason, he failed to do. With regard to the charge contained in the first count some objection was made to the use of the words *alleged* and *apparently* used in that count; the charge was framed upon the statement made by the master in Court of the manner in which he stated that those various soundings were taken. The amount of water gravely alleged to have been ascertained on those occasions was so violently in contrast with—judging from the barque's position where she stranded—what must have been the real depth of water under her keel at those various times, that a well grounded suspicion was excited in the Court's mind as to whether those various soundings were taken at all. The existence of that suspicion rendered it necessary to add the words already specified to the charge; but the Court

were however satisfied, after hearing the rest of the evidence in the case, that the attempts were made as stated by the master to obtain those soundings. At the same time the first and second officers of the vessel were, like the master, absolutely incapable of explaining how it was possible to obtain 17 and 20 fathoms of water when, upon the most liberal calculation, the *Star of Albion* at that time must, according to the Admiralty chart, have been in 8 to 10 fathoms only. The only possible explanation open to the Court to accept was the suggestion that in the use of the deep-sea line in comparatively shallow water the lead which was hove from the forecastle reached the bottom long before the line became taut in the master's hand, and that he on each occasion mistook the drag of the current on the line for a fair up and down sounding. Be that as it might, there was ample evidence in the record to make it quite clear that in taking the soundings specified in the charge the accused exhibited such carelessness and neglect as to have brought him well within a charge of culpable default of a sufficiently grave character to render him punishable under the Act. The Court found the master guilty on all the charges contained in the indictment. The Nautical assessors stated that to the first charge the accused pleaded not guilty, but they were of opinion that the depths of water alleged by him to have been obtained could not have been correct, for, allowing the barque to have been sailing 3 to 4 knots on the courses stated up to the time of the disaster, she would still have been 30 miles to the southward of the place where she stranded. On the second charge the accused pleaded guilty. On the third charge the accused also admitted if the words *cross-bearings* were omitted from the charge, which omission was allowed by the Court—still that position could have been ascertained by a single bearing and sounding. The Nautical assessors, therefore, were of opinion that the master of the *Star of Albion* was guilty of navigating the barque in a careless and unseamanlike manner. The Court, after having carefully considered all that was brought forward, were of opinion that the master navigated his vessel from the 24th September in a careless and unskilful manner, insomuch that he neglected to steer a proper course from noon so as to enable him to sight the Eastern Channel light-ship, it being the only conspicuous mark and safe guide for approaching the Pilots' station during the night; had he taken the precaution of consulting his book of Directions, which he admitted he had on board (*viz.*, Heckford's), he would have seen that he was committing a gross error in steering for a position marked on the Admiralty chart *Pilots' station*, instead of a well known light. He also did not trouble himself to ascertain from his Sailing Directory the state of the currents at that time of the year, as, had he done so, he would have steered a course to counteract the strong westerly set then prevalent. The Court observed that had he taken any of those precautions, he could not have failed to have sighted the light and corrected his position, which would have prevented the vessel being run into danger and ultimately lost. The Court farther desired to express their dissatisfaction at the manner in which the master left his vessel after having had it reported to him that the barque had 10′ of water in the hold, leaving the officers and crew to their own resources without any instructions as to their future actions, he (the master) not having returned again to the vessel to see whether the officers and crew acted with discretion in abandoning the vessel. The Court, under the powers reserved to them by section 18 of the above Act, ordered that the certificate of competency as master granted to the accused by the British Board of Trade in November 1881, under the provisions of the English Merchant Shipping Act, 1854, be suspended for a period of six months from the date on which the barque, *Star of Albion*, stranded on the Long Sands at the entrance to the Hooghly river on the 25th September. The Court farther recommended that the Local Government, under the powers conferred upon them

on that behalf by section 19, grant the said master a local first officer's certificate, in order that he might therewith be enabled to return to England as an officer.]

The Lieutenant-Governor of Bengal was pleased to accede to the Court's recommendation in exercise of the powers conferred upon him by section 19 of the above Act.

67. The British Indian mahangiri LAXMI [of Thána, 18 tons register, official number 6074, age 20 years], from Kalyán to Bombay, with a cargo of rice valued at ₹1,536. On the 30th September, at 9-30 P. M., the mahangiri was anchored in the Ghatkoper creek, Bombay harbour, but heavy weather having set in she drifted from her anchor and ran ashore, where she subsequently broke up. Loss, value of mahangiri, ₹8,518; cargo to the value of ₹506 was lost, and the remainder saved. The crew, 8 men, and one passenger, were saved in a toney belonging to the mahangiri.

68. The British Indian mahangiri DHARAO PRASAD [of Thána, 23 tons register, official number 6144, age 26 years], from Kalyán to Bombay, with a cargo of bricks, valued at ₹881. On the 30th September, at 9 P. M., the mahangiri was anchored in the Ghatkoper creek, Bombay harbour, but heavy weather having set in she strained herself, and one of the planks giving way, she rapidly filled with water and foundered. Loss, value of mahangiri, ₹6,000; cargo, worth ₹35, was lost, and the remainder was saved. The crew, 9 men. No lives lost.

OCTOBER.

69. The Native wooden battalla VITHALPRASAD [of Navanagar, Gujarát, 144 tons register, no official number, age 6 years], from Maskat to Surat, with a cargo of limestones, valued at ₹7,000. At 10 A.M. on the 6th October the battalla, when nearing the Tápti river (Gulf of Cambay), was driven on a sand bank by the strong tides and became a total wreck. Loss, value of battalla, ₹2,058; cargo, worth ₹240, was lost and the remainder saved. The crew, 6 men, saved themselves by swimming ashore.

70. The Native padow BHARIPURI [of Mahúva (Gujarát), 50 tons register, official number 210, age not known, supposed to be a very old vessel], from Ponáni to Mahúva, with a cargo of cocoanuts and teak-timber, valued at ₹13,000. At noon of the 7th October, when outside Mahúva harbour (Gulf of Cambay), owing to a severe storm from the southward, accompanied with much rain, the padow drifted on the Shanbhukhotha rock and became a total wreck. Assistance was rendered by the authorities, and a portion of the cargo was saved. The value of the padow was estimated at ₹1,500; and the value of the cargo saved was ₹12,500; the remainder was lost. The crew, 9 men, saved themselves in the small boat belonging to the padow.

71. The British iron screw steamer CALCUTTA [of Glasgow, 550 tons register, official number 67984, schooner-rigged, age 13 years, classed at Lloyds 100 A.I.], from Chittagong to Calcutta, with a general cargo and 20 saloon, and about 300 native deck passengers on board. On the 11th October, at 11-30 A.M., the *Calcutta* on the flood-tide cast off from the buoy, and proceeded down the Kornafuli river (Chittagong coast) full speed without a pilot on board; soon after getting underweigh the master observed the steam-ship *Mahratta,* of the same Company's fleet, at the Gupta kháli crossing; proceeding up the river, whereupon the master presuming she had a special pilot of the Hooghly river for her on board, and expecting her to transfer him to the *Calcutta,* it being customary for the downward vessel to send a pilot, the *Calcutta* went between the ships at the buoys and a small native brig which was moored on the East or shoal side of the river. Whilst abreast the ship *Middlesex* which vessel was lying at No. 4 buoy, the *Calcutta*

sounded her whistle—a prolonged blast—in order to attract the attention of the *Mahratta,* and the master rang the telegraph for the engines to *stand by,* then *half-speed,* and then easy, after which they were stopped for the purpose of receiving the pilot on board. By that time the *Calcutta* was near the ship *Prince Edward,* which vessel was lying at No. 8 buoy with Nos. 9 and 10 buoys on the starboard bow, the *Mahratta* being below and to the westward of the buoys. She was then on a parallel course to the *Calcutta* and on her starboard bow, and the latter vessel was going along the eastern side of the river under starboard helm to head the tide. The *Calcutta* was proceeding at the rate of 3 or 4 knots through the water, and when between the ship *Prince Edward* and No. 9 buoy the helm was steadied; at that moment the master on observing that the *Mahratta's* head was canting to starboard, ordered his helm *hard-a-port.* The *Calcutta* was stemming the tide, and her master seeing that he could not possibly clear the *Mahratta* on a port helm, and if put a port would undoubtedly foul the ship *Prince Edward,* deemed it necessary to order the helm hard-a-starboard and the engines to go full speed ahead, by which manœuvre he endeavoured to get across the bow of the *Mahratta.* At 11-55 A.M., the *Mahratta* whilst 404 yards S. E. of Kumar kháli, got across the river drifting up with the tide, which at that time was running 3 or 4 knots per hour, and came into collision with the steamer *Calcutta,* striking the latter vessel on the starboard quarter, a little before the mainmast, with considerable force. The master immediately stopped the *Calcutta's* engines and let go the starboard anchor, but seeing that the steamer was sinking, he again put the engines full-speed ahead in order to beach her; the *Mahratta* was still in contact, and as the *Calcutta* would not move ahead, and showed signs of sinking rapidly, the engines were stopped and all hands ordered to get the boats out in order to save the saloon, and native deck, passengers. The two vessels remained locked together for 4 minutes, after which the *Calcutta* steamed ahead, and as she was drifting out into the stream, the master veered out cable to 45 fathoms to prevent her sinking in deep water, or fouling other vessels in the harbour. Numbers of boats from the several vessels in the harbour and from shore were sent off, and rendered great service in saving life. Within about a quarter of an hour of the disaster the *Calcutta* sank aft, and was speedily immersed up to the bridge. She remained with her bows out of the water for two hours longer, and then quietly settled down altogether. The master accounted for the disaster by the *Mahratta* having proceeded up the river on the flood-tide with too much way on, and thereby approached the *Calcutta* in a manner which made it impossible for the latter vessel to get out of her way; if the *Mahratta* had continued in the direction in which she was going when near the shipping, she would either have passed to the westward of the buoys—a good and safe channel—or would have passed up on the *Calcutta's* starboard side. The *Mahratta* was canting, and lowering her port quarter boat when the accident happened; she destroyed the *Calcutta's* steering gear, and the force of the blow bent the steering rod on the starboard side, the wheel and steering gear were shattered, and the men steering were thrown some distance forward. The master of the *Calcutta* alleged that his reason for proceeding to the eastward of the shipping was that the flood-tide there was weaker than to the westward; and as the steamer was heading the tide, she was not only under perfect control, but there was ample room to pass between the vessels at the buoys and the native brigs; and moreover, in taking the channel to the westward of the shipping on a flood-tide, there was risk of the bow being caught by the tide, when the vessel would be swept round against the bank, as in taking the channel the steamer must necessarily be brought nearly broadside on to the tide in rounding the buoys. The customary place for meeting to transfer the pilot was either at Gupta kháli crossing or at Juldia, but if there was a strong flood-tide running she would anchor below the shipping; in this case, the *Mahratta*

seeing that the *Calcutta* was proceeding down through the shipping, and knowing that there was insufficient room for the two steamers to pass in safety between the vessels at the buoys and the native brigs, should not have approached too close to the shipping; the master of the *Calcutta* expected the *Mahratta* to proceed up the channel to the westward of the vessels at the buoys, as she was already on that side of the river, the *Calcutta* at that time being close over to the eastern bank and nearly in line between two native brigs. There were two recognized channels, one to the eastward and the other to the westward of the buoys, and when one channel was not clear the other was taken, whether on flood-tide or ebb-tide; but on this occasion the eastern channel was clear, so the *Calcutta* proceeded through it, and when nearly out of it, the *Mahratta* attempted to enter it, and the accident happened. The chief engineer swore that about a quarter of an hour after the *Calcutta* left the mooring buoy the engines went full speed, then slow at 11-51, then stop at 11-52; the next order was full speed ahead, and immediately before the accident occurred the telegraph rang "stop." On going up to the second landing he saw the water spirting in on to the cylinders; he went on the bridge and reported it to the master, and by the time he returned the water was up to the main hatch; the master thereupon said to him "ease the steam, that will do." The master of the ship *Prince Edward* stated that he was on the poop deck of his vessel on the day in question, when he heard a prolonged whistle from the *Calcutta,* which vessel was steaming down abreast nearly in mid-channel and the *Mahratta* was rounding the bend. Immediately afterwards the latter vessel took a heavy sheer across the river, her head being to the N.E., and the master considering that a collision was inevitable, ordered the boats of the *Prince Edward* to be lowered, and just then the *Mahratta* struck the *Calcutta* whilst the latter vessel was sheering slightly into the eastern bank. He was of opinion that had the *Mahratta* gone up the western channel, there would have been no collision; there was no obstruction to prevent the *Mahratta* going up that channel, whereas, in fact, there were native brigs along the eastern bank, and it was dangerous for two vessels to attempt to pass in it, the *Calcutta* was just above the ship *Prince Edward* with the helm hard-a-starboard, going $4\frac{1}{2}$ knots through the water and appeared as if she was running a brig down and taking the ground. The master positively stated that when he saw the *Mahratta* turn to the East, if the *Calcutta* had ported her helm at the pace she was going and the rate the tide was running, she would have ran into the *Prince Edward;* but had the *Calcutta* avoided his vessel, she could not have prevented the casualty with the *Mahratta.* The third officer of the *Calcutta* deposed that he was on the bridge attending to the engine-room telegraph, and immediately after leaving the buoy he saw the *Mahratta* proceeding up the river, when the master told him that the *Mahratta* was steaming along at great speed, and that if she did not ease down she would meet the *Calcutta* about the shipping. When halfway through the shipping the master blew the *Calcutta's* whistle and then eased down to *half-speed ahead,* then *slow ahead,* then *stop,* and soon after the engines went *full-speed ahead* again. The helm was ported, but before she had time to answer it, the master gave the order to *steady and hard-a-starboard,* the engines going full-speed ahead; but just after the collision took place the engines were stopped, and then again put to full-speed ahead, after he was ordered by the master to lower the boats to save the passengers and crew as the *Calcutta* was sinking. The first officer was on the forecastle rails forward keeping a look-out. He stated that if the *Calcutta* had been on her own side of the channel, and the *Mahratta* had passed on the starboard side, the collision would have happened, but both vessels would have lost their boats. The Port Officer stated that the width of the western channel at half-tide was about 450 feet on the chart, but since the survey was made in 1883 the bank had been eroding away, so that the

channel at present was fully 500 feet; the eastern channel again had been silting up, and 400 feet at most was the width of the channel if all the native vessels kept in line. At one o'clock on the afternoon of the 11th it was three-quarters flood, and the tide was running at the rate of 4½ knots an hour. He stated that Port Rule XXXI prohibited vessels under steam, sail, or in tow to enter the river on the flood or leave the port on the ebb within port limits, and that he had not given permission on that day to either of the vessels to go with the tide; but on a former occasion permission was granted to the masters of the steam-ships *Calcutta* and *Cocanada* as they had both been licensed pilots of the Chittagong port, and had special knowledge of the river, and that when carrying the mails they could bring their vessels up with the flood-tide as far as No. 10 mooring buoy or to *below the shipping*, whichever was the lowest. A vessel proceeding up should choose the western channel, as the water was not only deeper, but there was more room; besides, the eastern channel was generally more obstructed by native brigs. He stated that it was absolutely necessary for the *Calcutta* to starboard her helm when going against the flood-tide, whilst near and after the opening, between Lakhyar chur and the Gupta cherra. There were two channels, and owing to the set of the currents, it was the recognized practice for a steamer to proceed down against a flood-tide in the eastern channel, as she had comparatively less force of the tide there to contend with than in the western channel. The Port Officer stated that the western channel was clear on the day in question, with the exception of one or two native brigs, which vessels were dropping down, and had anchored about 4 or 5 P.M. The *Calcutta* at low-tide was lying in 24′ water at the stem and 21′ at the stern, and appeared to be fast sinking into the bed of the river. The Surveyors were of opinion that the cost of raising and repairing her would be more than she was worth, and therefore considered her a total wreck. The tug *Cyclone,* with powerful pumps and appliances on board, was sent down from Calcutta, but it was found that there was no chance of saving the vessel or her cargo. Original value of the steamer *Calcutta,* £20,000; cargo, £10,000. The crew, 70 men, and 320 passengers. No lives were lost.

[A Special Court of Inquiry was held in the office of the Port Officer, Chittagong, by the District Magistrate, on the 24th and 26th October and 2nd and 4th November, under the provisions of sections 7 and 9 of Act V of 1883 (Indian Merchant Shipping Act), to enquire into the collision between the steam-ships *Calcutta* and the *Mahratta,* the former vessel proceeding down the Kornafuli river and the latter inward bound, both being in charge of their respective masters on the 11th October. The Court recorded that on first assembling pursuant to citation, the papers and correspondence relating to the case were read and filed, after which a copy of the Resolution of the Government, together with a copy of the Commissioner's report, was handed to the representative of Government, and copies also were handed to the masters of the respective vessels. The Prosecutor then briefly addressed the Court, after which he proceeded to call the witnesses. After above a quarter of an hour's deliberation it appeared likely that this investigation was likely to involve the consideration of the question as to the cancellation or suspension of a certificate, and it was necessary for the Court, under section 13 of the above Act, to appoint two assessors. Accordingly the masters of the sailing ships *Duntrune* and *Amyone* being present in Court, they were appointed as Nautical assessors. The Court after taking the evidence of the masters of the respective vessels and of others whose evidence appeared to be material, adjourned for the trial till the 26th. On the Court re-assembling on that day further evidence was gone into. The Court said that, in the course of the preliminary investigation, it seemed to the Prosecutor that there were sufficient grounds for framing a charge against the master of the *Mahratta* and to exonerate the master of the *Calcutta.* The Court there-

upon directed the parties to withdraw, and framed a charge of rash navigation against the master, as follows:—That he, on or about the 11th day of October, at a little before noon, in the port of Chittagong, rashly navigated the steamer *Mahratta,* then under his charge, and in consequence thereof his vessel came into collision with the steamer *Calcutta,* and his rashness consisted in, *firstly,* the bringing the vessel within port limits and amongst the shipping on a flood-tide in contravention of Rule XXXI of the Chittagong Port rules; *secondly,* in bringing the steamer into the eastern channel, seeing that that channel was occupied by the *Calcutta*, and that the western channel was clear; and *thirdly,* in that, when taking the eastern channel, he so manœuvred his vessel as to lay her across that channel, thus rendering a collision with the *Calcutta* almost unavoidable. A copy of the statement of the grounds upon which such charge was framed, and of the charge itself, was then handed to the accused, who was called on for his defence. The accused thereupon asked to be allowed an adjournment to obtain the evidence of the Hooghly river pilot who was on board the *Mahratta* ready to be transferred to the *Calcutta*, and the Court was adjourned to the 31st October, the investigation into the charge to stand adjourned to the 2nd November, in case the steamer should not be in port in time on the first named day. On the 2nd November the witnesses for the defence were called, and on conclusion of their evidence the Prosecutor offered to call evidence to show that there were two channels, but the President considered it unnecessary, as it was clearly understood that the line of moorings divided the river in two. The accused was present in Court during the whole of the proceedings, and had full opportunity of cross-examining the witnesses called by the prosecution and of making a defence. He declined to deliver any address. The representative of Government then addressed the Court at some length, conclusively showing that the *Mahratta* was rashly navigated. The Court, after about a quarter of an hour's deliberation, unanimously found the accused guilty on all the three counts of the charge, and farther adjourned to the 4th November, in order that they might consider their finding and order. The Court observed that the fact that the master brought his steamer, the *Mahratta*, within port limits and amongst the shipping on a flood-tide on the occasion stated in the *first count* of the charge, was admitted by himself and by all, and was beyond any sort of doubt. It was shown that the accused had visited the Kornafuli river once before this occurrence after an absence of four years, and the Court considered that he should not have thought himself competent, after such an absence during which the river was liable to great changes, to have brought his steamer up himself, more especially when there was a special pilot (a Hooghly river pilot) on board; and the Court were of opinion that it was clearly the accused's duty to have made himself acquainted with the Port rules. The Court also considered that it was a rash act to have brought the vessel up on the flood; it was shown, in evidence, that other steamers had on other occasions proceeded up on the flood, but that did not alter in any degree the fact that it was a rash thing to have done. With regard to the *second count* the Court recorded that the Kornafuli river was, for all practical purposes, divided into two channels at that locality by the line of mooring buoys in midstream, to which the large vessels were moored. As that was clearly shown on the chart, there was no need to enter into that point farther. The Court was convinced on the evidence that the *Mahratta* was close below the entrance to those two channels, *i.e.,* below No. 10 mooring buoy, when she was sheered across the river with her head to the eastward, and was then in the act of lowering the boat to transfer the pilot. That led the master of the *Calcutta* to suppose that the *Mahratta* was about to anchor, as he and his first officer both stated was their impression. Under those circumstances the Court were of opinion that the *Calcutta* was perfectly justified in following the course she did. There was a good deal of

conflict in the evidence as to the distance of the *Mahratta* from No. 10 buoy at the time she sheered across towards the eastern bank, and also as to the time when the engines of the *Mahratta* were reversed. It was clearly proved that the *Calcutta* was a great part of the way down the eastern channel when the *Mahratta* canted across, and the Court were of opinion that, seeing the western channel was the clearest, the master of the *Mahratta* committed an error of judgment in having decided to enter the eastern channel. On the *third count* of the charge the Court consdiered that there was no farther act of rashness in the manœuvring of the *Mahratta* after she had sheered across to the eastern channel, but the master's rashness consisted in having entered the channel at the time he did, when there was not sufficient room nor sufficient time to avoid the risk of a collision. The Court considered that if the accused had intended to take the eastern channel, he should have been on that side of the river much lower down; and the Court observed that it was proved by the evidence that he was keeping along the western bank. The accused himself stated that he was keeping along the eastern bank, but that statement was not borne out by the evidence; and the Court were of opinion that it was clear if he had been on the eastern bank and had ported his helm, he must necessarily have gone on the bank amongst the native brigs. As a matter of fact, he was not on the eastern bank. Under the conclusions arrived at, the Court felt bound to hold the master of the *Mahratta* guilty of rashness as stated in the charge. At the same time it was just to state that there was nothing like incompetency, and that the accused was undoubtedly doing his best in managing his steamer. It was in reality little else than an error of judgment which led him to take the risk without considering how serious the result might be. The Court recorded that one Nautical assessor (the master of the ship *Duntrune*) was of opinion, *first,* that the master of the *Mahratta* was in fault by having brought up his vessel amongst the shipping with a flood-tide contrary to the Chittagong Port Rules; *second,* seeing the steamer *Calcutta* in the eastern channel, and the western channel clear or nearly so, the *Mahratta* was in fault for not having taken the western channel, and by proceeding up the eastern channel made the channel more difficult to navigate; *third,* the *Mahratta* was in fault by lying across the channel and lowering his port quarter boat at the time; it would be very apt to make any one believe that she was going to anchor, and by not doing so, made a collision unavoidable. The Court recorded that the other Nautical assessor (the master of the ship *Amyone)* stated that in his opinion the *Mahratta* was in fault in having proceeded up the river with the flood-tide in contravention of the Chittagong Port Rules; still it was proved by the evidence that it had been often done. With regard to the second count the *Mahratta* might have taken the western channel, as the *Calcutta* already occupied the eastern one; but it appeared to the Nautical assessor by the evidence that the eastern channel was the one which was nearly always taken by steamers in both going up and down the Kornafuli river. The evidence on the third count of the charge was very conflicting. Some of the witnesses stated that the *Mahratta* was always steering across the channel from the western to the eastern shore until the collision; others—amongst them the Hooghly river pilot—affirmed that the *Mahratta* had straightened herself in the eastern channel. If such was the case, when the *Mahratta* ported her helm, the *Calcutta* should have done the same, so as they would have passed one another on their proper sides according to the Rule of the Road. It also seemed that the *Calcutta* was all the time on the eastern side of the channel instead of the middle or opposite side. If so, she starboarding her helm when the *Mahratta* ported was wrong, and the Nautical assessor considered the *Calcutta* on that account more to blame than the *Mahratta* in having caused the collision. Also the *Calcutta* proceeding against the tide would be better under control than the vessel going up. The Court found the accused

guilty of having rashly navigated the steam-ship *Mahratta* as set forth in the charge, and directed that his certificate of competency granted by the British Board of Trade as master be suspended for a period of six months, with effect from the 26th October, the date when the charge was framed against him. The Court, in accordance with section 19 of the above Act, recommended that a certificate as first officer should be granted to the master during the period he might be under suspension.]

The Officiating Commissioner of the Chittagong Division recorded that he tried to get a pleader to conduct the prosecution, but failed to engage one till midday on the third day of the Court, all being away owing to the Durga Puja vacation, he therefore sat himself in Court and assisted the Port Officer in the prosecution until the pleader appeared. The Officiating Commissioner observed that there could, he considered, have been no doubt that the collision was due entirely to the recklessness of the master of the steam-ship *Mahratta,* first, in having proceeded up the river above the shipping on a strong flood-tide, variously described by the witnesses as running from $2\frac{1}{2}$ to $4\frac{1}{2}$ miles an hour, and next in having chosen the eastern channel down which the steam-ship *Calcutta* was going, and which she had been in for some time. The Officiating Commissioner considered the master of the *Calcutta* was in no way to blame for the following reasons :—He took the usual, and, as the Port Officer's evidence proved, the safest channel for vessels going down against the stream, and he went down that channel on her starboard helm which the tides necessitated. When near the end of that channel the *Mahratta* appeared going round the corner and on the western or opposite bank, and she continued that course until a distance variously estimated by different witnesses; but the Officiating Commissioner considered that the evidence of her own first officer might be accepted that she crossed No. 10, or the lowest buoy, about 600′ to 800′ below it. The steamer must then have been going over the ground 7 to 8 miles an hour; her chief engineer stated that going dead-slow she would go $3\frac{1}{2}$ to 4 miles an hour in still water, and the flood was running from $2\frac{1}{2}$ to $4\frac{1}{2}$ miles an hour. The Officiating Commissioner considered that on this last point the Port Officer's evidence must be accepted, and he said 4 to $4\frac{1}{2}$, she would therefore be going about $7\frac{1}{2}$ miles an hour. Seeing that the *Mahratta* steered out in that manner, and knowing the prohibition against vessels proceeding up with the tide amongst the shipping, the master of the *Calcutta* was perfectly justified in having considered that the *Mahratta* was about to anchor, more especially when he saw her port boat being lowered. At that moment the *Calcutta* must have been nearly stationary, *i. e.,* she was doing little more than stemming the current. The interval between the certainty that the *Mahratta* was not going to anchor and the collision was a very short one, and the Officiating Commissioner calculated it at less than $2\frac{3}{4}$ minutes if the *Calcutta* had been stationary, whereas she moved before the accident, and it was probable not more than two minutes. After the master of the *Calcutta* saw that the *Mahratta* was really proceeding into the eastern channel almost broadside on he had the choice of three courses—he might have ported his helm (which was what the master of the *Mahratta* stated he should have done) and tried to pass the *Mahratta* in the eastern channel, or he might have tried to cross over into the western channel, crossing the bows of the ship *Prince Edward,* or he might have acted as he did and tried to pass the *Mahratta* on the eastern bank. The Officiating Commissioner observed that the master of the ship *Prince Edward's* evidence was conclusive against the possibility of crossing his vessel or avoiding the *Mahratta* by porting; he was an old man, and gave his evidence most clearly; he was the nearest unconcerned spectator of the casualty, which took place just abreast, or a little below his vessel, and his evidence was, therefore, most valuable. There remained the third course, and, in the opinion of the

Officiating Commissioner, the master of the *Calcutta* acted with presence of mind andpromptitude in having adopted it, and it very nearly proved successful. In fact, if the master of the *Mahratta* had reversed his engines, as he swore he did, but which his own engineer proved that he did not, the collision would not have occurred; and that the master of the *Calcutta* was justified in considering that this would be done as soon as the vessels approached each other, and that he would, therefore, on the whole, run the least risk by acting as he did. He was a passed pilot of the Kornafuli river, and knew the channels and currents and rules, and he acted in a manner which showed he put his knowledge to good use. For the above reasons, the Court was not asked to frame any charge against the master of the *Calcutta*. The conduct of the master of the *Mahratta* seemed to have been exactly the contrary; he had not been in the Kornafuli river for four years, except once. During which period the river had changed much and the shipping had greatly increased; yet he took no trouble to learn or make himself acquainted with the port rules, and he nevertheless proceeded up in direct defiance of one of those rules. When he got his steamer across the stream and a collision was inevitable if he could not stop her, he went on until the vessel actually struck, as was proved by his own engineer, and thus he alone seemed responsible for the casualty. The Officiating Commissioner of the Chittagong Division remarked that the whole affair showed how necessary compulsory pilotage was in the port of Chittagong; and the last part of the Hooghly river pilot's evidence strongly emphasised that, as it showed, a collision nearly took place between two of the same Company's steamers only a fortnight before the present occasion. The Officiating Commissioner did not think it was a part of his duty in his report to make any remarks on the sentence, but he noted that the opinion of the master of the ship *Amyone* (one of the Nautical assessors of the Court) seemed to show ignorance of the Rules of the Road. The rule was that two vessels end on should port their helms, but those steamers never were and never could have been end on, and the witnesses, who alleged that they were, misstated facts. The rule was farther qualified by Rule 19 of the Board of Trade Rules, which the Nautical assessors seemed altogether to have overlooked. The Officiating Commissioner of the Chittagong Division remarked that it was most extraordinary that no lives were lost, and it reflected great credit on the master and officers of the sinking steamer that they acted so promptly in clearing the vessel, the master being the last man to leave her.

(For an account of the Mahratta, see Casualties No. 308.)

72. The Native kotia HARI PRASAD [of Bhúj, 70 tons register, official number 392, age unknown], from Bombay to Mangalore, with a cargo of coals, valued ₹2,000. At 1-30 P.M., on the 15th October, the kotia was entering the harbour of Mangalore, when the wind fell light from the westward, and there being a little current running she drifted on the sands off the village of Nethravatti (Malabár coast), and became a total wreck. Loss, value of kotia, ₹4,000; cargo, worth ₹280, was lost, and the remainder saved. The crew, 7 men, were saved in the kotia's boat. (The disaster might have been avoided had the anchor been let go; the tindal stated that the kotia dragged her anchor, but it was very doubtful. The craft would not have been so seriously damaged had she been seaworthy, but she was very old and rotten.)

73. The British Indian wooden dhoney COMARASWAMY BAKIA LEKSHUMI [of Cuddalore, 142 tons register, official number 4 of 1881], from Pámban to Calasegarapatnam, with a cargo of rice, paddy, gingelly seeds, &c., valued at ₹7,000. At 7 P.M., on the 21st October, the dhoney whilst proceeding out of Pámban roadstead (Gulf of Manár), grounded, in consequence of the negligence of the tindal, on a rock to the S.S.W. of Pámban and sprung a leak. The crew finding that the water did not decrease, notwithstanding all efforts

made to bail the water out, steered for the land and then beached her near Naripejoor, where, after landing the cargo, she broke up owing to the heavy surf. Loss, value of dhoney, ₹3,000; cargo, worth ₹3,850, was lost; the remainder was saved. The crew, 15 men. No lives lost.

NOVEMBER.

74. The British Indian mahangiri SAFER SALAMATE [of Mangalore, 90 tons register, official number 23], from Manjeshwar to Mangalore, with a cargo of nuts. On the 2nd November the mahangiri was proceeding out of Manjeshwar harbour (Malabár coast), and at 8 P. M. owing to the channel being blocked with other vessels, she stranded on the bar, about half a mile from the Custom-house, and broke up. Loss, value of mahangiri, ₹1,000; cargo, ₹275. The crew, 6 men, were saved by swimming.

75. The French wooden barque GOL [of Nantes, 376 tons register, official number not reported, age 16 years, class not stated], from Cocanada to Réunion, with a cargo of 456 tons of gram, seeds, and oil. On the 19th October the barque left Cocanada, and all went well until the 24th, when in latitude 12° 13′ N., longitude 80° 09′ E., Bay of Bengal, the vessel encountered a storm from the South, the sea being confused from all sides; a heavy swell from the N. E. caused the barque to labour excessively, and the master was obliged to tack and stand towards the land in order to get the sea aft By daylight it was found that the bilge water was cleaner and the pumps only sucked after ten minutes work; she continued to make water, but without distressing the pumps, which were in good order, and threw about two tons every five minutes. On the 30th, whilst doubling the South point of Ceylon, a gale from the W.N.W. came on, accompanied by a frightful sea with very heavy rain; the leakage increased, so that on the following day, although pumping the enormous quantity of 170 tons in 24 hours, the pumps could not quite free the vessel, whereupon the master called the officers, and after a brief consultation decided that it was not prudent to continue the voyage to Réunion; they determined to alter the course, and put back. But at that season of the year it was impossible to go to Point de Galle harbour, the wind being always West and the current against the vessel; the only alternative was to return northward and put into the first port; she was therefore steered for the land; 30 bags were thrown overboard. After three days of variable weather, and rather cyclonic in direction with calms, during which time the current carried the barque rapidly to the South, the water gaining on her incessantly, and she seeming likely to founder, the master steered to get into shoal water; the wells shewed 5½′. At 10 A. M. on the 2nd November the gram came up in quantities in the pumps; at midnight endeavours were made in vain to clear the pumps; it was then thought necessary to determine what course to pursue, as the crew were tired out and the water rising fast; the master assembled all hands, when it was decided to beach the vessel at daybreak to avoid total loss of the barque and cargo, the water rising at the rate of 2½″ an hour; the vessel was down by the head, which was nearly level with the water; had no longer stability, and in a few hours all would be over. At 8 A. M. the master finding that the barque was a mile from Paria-kallar, he lowered all the boats and steered for a place on the beach where the sea appeared the least rough, and at 9 o'clock, after several bumps on coral reefs, the *Gol* stranded 2 miles South of Paria-kallar, and nearly 20 miles South of Batticaloa port (East coast of Ceylon) on a hard sandy beach; the draught being greater forward than aft, the vessel fell athwart, parted, and filled with water. Just before beaching the barque there were 12′ of water in the hold. The sea broke on the beach; and it was feared that the vessel, lying across, was no longer safe for the crew. At 10 A.M., after taking in the sails, the master commenced to salve the cargo. Subsequently the crew were

landed, beginning with the boys and a sick man, the cook and a stowaway; the barque showed signs of breaking up at 3 P.M. and the sea increasing, landed the officers all safely. In the meantime the complete crew were landed without any accident, but the two boats were quite broken; some of the men were encamped opposite the vessel for the purpose of keeping watch, whilst the remaining men were trying to salve as much of the cargo they were able. Work was resumed as soon as the weather was fine, but the men were very shortly afterwards tired out, and there were no boats in the country to continue saving the cargo; some of the natives, whom the officers had asked for a boat, refused, but the Police authorities helped the master with much courage, or else the crew could have hardly saved their lives; they also put a guard on the vessel. After this, the master went to the village with the first person who appeared to fulfil necessary formalities, but learnt there was no competent authority, and that the Magistrate of Batticaloa would arrive the next day; so he returned to camp, where the crew had collected all they had saved from the wrecked barque, and had landed part of their effects. The authorities who came to assist procured men, who, on promise of payment, commenced salvage of material, but during the night the materials had all been washed away by the sea; the Magistrate then ordered the men to quit the beach, and lodged and fed them in the village, after which they were sent on to Colombo. Original value of barque *Gol,* ₹75,000; cargo, ₹36,805. The crew, 14 men, were all saved in boats. (No official report of this wreck reached this Department, nor could any information be obtained from the Marine authorities at Colombo or Batticaloa; the above details were compiled from private sources.)

76. The British Indian pattimar KALIAN PRASSAD [of Anjanvel, 50 tons register, official number 6688, age 36 years], from Calicut to Chiplún, with a cargo of cocoanuts, cocoanut kernels, and empty casks, valued at ₹1,297. On the 5th November, at midnight, the pattimar experienced a strong southerly gale when off Mount Delly and sprung a leak. She being very old, and the crew being exhausted and unable to stop the leak, the pattimar filled with water; the crew allowed her to drift towards the shore, and she stranded off the village of Kadapara, about 32 miles from Kasurgode (Malabár coast), where she broke up. Loss, value of *Kalian Prassad,* ₹1,300; cargo, all lost. The crew, 11 men. No lives lost.

77. The British Indian muchwa BARKHATI [of Ratnagiri, 15 tons register, official number 5317, age 30 years], from Sadáshivgad to Máhúl, with a cargo of shells. On the 6th November the muchwa, in consequence of the negligence of the tindal, struck on some rocks off Nivti bandar and sprung a leak. The crew tried to bail the water out, but to no purpose; thinking that she would soon founder, the tindal steered her towards the coast, when at 5 P.M. she stranded 3 miles South of Málvan fort (Bombay coast), and afterwards slipped into deep water and foundered. Loss, value of muchwa, ₹1,000; cargo, ₹80. The crew, 5 men, and 3 passengers. No lives lost.

78. The British Indian hodi SACKRI SALAMATI [of Alibág, 17 tons register, official number 115, age 10 years], from sea to Korlai, with a cargo of fishes and fishing nets. On the morning of the 7th November the hodi was proceeding up the Revdanda creek (Bombay coast), and the steamer *Bheema* was entering the creek; at 8 A.M., when near Korlai fort, the steamer suddenly changed her course to avoid shoal water, and came into collision with the hodi, thereby causing her to fill rapidly; she foundered immediately. The calamity was attributed to the negligence of the master of the steamer *Bheema* in not having paid attention to the navigation. It was broad daylight, the weather was fine and clear, and the sea smooth with a westerly wind. No precaution seemed to have been taken when the steamer was getting dangerously near the bank, and the helm was put hard-a-port, when she ran into the hodi and sank her.

Loss, value of *Sackri Salamati,* R450; cargo R200. The crew, 4 men, were saved in the steamer's boat.

(For an account of the Bheema, see Casualties No. 321.)

79. The British iron screw steamer INDUS [of Glasgow, 2,199 tons register, official number 65564, age 14 years, barque rigged, classed at Lloyds, A. I, belonging to the Peninsular and Oriental Steam Navigation Company], from Calcutta to London, with a cargo of indigo, silk, hides, tea, &c., and specie, valued at £40,000, and 22 passengers on board. It appeared that the steamer left Calcutta on the 2nd November and arrived at Madras on the 6th, and left that port the next day bound to Colombo. The officer on watch was astonished at daylight on the 8th November to find that the steamer was close to land; he immediately called the master, who altered the course 1½ points seaward, but it was then too late for that manœuvre to be of any use, and the vessel grounded on a coral reef at 6-15 A.M. 4 miles off Mullaitivu (N. E. coast of Ceylon). Every effort was made to get her off, and these exertions succeeded, but about 2 o'clock that afternoon her bottom fouled the anchor which had been let go, and she struck on it 2 or 3 times in succession. This made a large hole and let the water into the stern compartment. In attempting to get off the shoal the steamer again ran ashore, and on the following day the water steadily gained until the pressure burst the bulk-heads and flooded the engine-room; the *Indus* then sank in 5 fathoms of water and so suddenly that there was no time to save the passengers' baggage and treasure. On the 9th Her Majesty's ship *Ranger* arrived and took off all the passengers and landed them at Trincomlie, whence they were finally taken on to Colombo on the 13th in the steam-ship *Clyde* of the same Company's fleet. Original value of *Indus,* £10,000; cargo, £80,000. The vessel was wholly submerged, and the cargo in consequence damaged more or less; salvage operations were conducted for over two months, when some 700 chests of indigo, 168 of lac, 222 bales of tanned skins, and only one box of gold (valued at £2,750) were saved. The hull, together with the remaining portion of the cargo, were put up to auction on the 5th July 1886, but as the offers were not up to the required limit, the sale was withdrawn. The crew, 150 men, and 22 passengers. No lives lost. (No official report of this wreck reached this Department either from Trincomalie or Colombo, nor could any information be obtained from the Company's Agents at Colombo and Calcutta; the above details were extracted from the newspapers).

[A Court of Inquiry was held in the Court of the District Judge, Colombo, by the District Judge, on the 3rd and 4th December, under the Merchant Shipping Amendment Act, 1862, and the Ceylon Ordinance No. 4 of 1863, to inquire into the circumstances attending the stranding and subsequent loss of the above steamer off Moeletivoe or Mullaitivu. The Court recorded that the Peninsular and Oriental Steam Navigation Company's steamer *Indus* was on her voyage to Colombo from Madras, which latter port she left at 1-35 P.M. on the 7th November, and was wrecked in attempting to extricate her from a shoal off Moeletivoe or Mullaitivu on the N. E. coast of Ceylon, on which she struck at about 6-15 on the following morning. The shoal on which she grounded was in latitude 9° 20′ N., and longitude 80° 51′ E., and about 4 miles from the shore and town (or village) of Mullaitivu. The immediate cause of the disaster appeared to have been a leak caused by the steamer grounding on her port anchor, which had been let go in the attempts to extricate her and keep her from drifting further ashore. How she came to strike on the anchor—the tendency of both swell and current being to drive her from it—had not been made clear, and whether it was possible to have avoided it was a technical question on which the recorded testimony did not afford the Court materials for forming a correct judgment, and on which, therefore, the Court were guided entirely by the Nautical assessor. Had that accident not occurred, there was good reason to believe that

the ship might have been got safely off the bank after she grounded, because she subsequently floated off with her fore hold full of water and ultimately sank in deep water; and (except the striking on the anchor, on which the Court had no personal opinion) the Court saw reason to doubt that the master did all that was reasonable and prudent for that purpose. On further inquiry into the remoter cause of the disaster—the cause of the steamer being on, or near to that shoal at all, and the management of the vessel during the short interval between the time that land was observed by the first officer, and the time of the stranding—the Court were constrained to form a judgment adverse to those who were responsible for the *Indus's* safety. The Court on commenting on the second of those points observed, *firstly,* that the first officer, being then on watch, unexpectedly discovered land at about 10 minutes before 6 A.M., which was very nearly the time of sunrise, and judging it to be 5 or 6 miles off, immediately sent word to the master. The vessel's expected position at that time would have been in latitude 9° 57 N., longitude 18° 10′ 30″ E., and therefore 46 miles from any land. The steamer's head, he stated, might then have been about half a point inside of a line parallel to the coast line to Trincomalie. Under those circumstances, and with shoals known to lie 4 to 6 miles off the N.E. coast of the Island of Ceylon, and no observation for longitude since leaving Madras, it was manifest that the *Indus* ought to have been promptly hauled right off until her actual approximate position could be ascertained. The first officer, however, only put her off about one point, which in her actual position and course was useless. That position proved to have been 36 miles South of her expected latitude and 18 miles West of her expected longitude and 42 miles S.W. from the expected position. He had explained that he supposed he was to the southward of Sandy Point, which was the same as Mullaitivu, but it seemed to the Court that he had no reason whatever for that supposition, and that the expected position of the steamer (much farther N.E.) and the difference between the trend of the land northward and southward of Mullaitivu (where it juts out with an obtuse angle), and the fact that Mullaitivu was the nearest land to the expected position, all gave him, the Court considered, good reason for just the contrary conclusion. The first officer's responsibility, however, very shortly ceased by the master going on the bridge, and the latter then starboarded another half point, with the result that very shortly afterwards—within at the most 25 minutes after the first officer first discovered land—the *Indus* ran aground on the Mullaitivu shoal, 4 miles from shore, whilst the master was endeavouring to get bearings without success owing to the absence of any distinctive marks on land. The Court were of opinion that there was a most blameworthy omission in not having put the steamer's head right off the land, if only as a matter of precaution at a time when her true position was quite unknown, and there was grave reason for doubting her safety: there being land within 5 miles (as the first officer judged, where no land had been expected, and there being no bearings obtainable whereby the master could judge whether he had past the shoals and low soundings which his chart showed pretty well all down the coast from Point Pedro to Mullaitivu, and he, knowing only that he was a very great way out of his intended course, and that Mullaitivu with its shoals 4 or 5 miles out was, in point of fact, the very nearest point of land to where he had expected to be at that hour, and therefore the point to which it must have required the least aggregate amount of force to drive him from his expected and intended position. And this opinion was confirmed by the evidence of a professional gentleman, the master of the British India steam-ship *Manora,* who had stated that if he had found himself in the same position unable to obtain bearings, and the vessel's head half a point inside the line of the visible coast, he would have at once altered her course by about five points. This omission to put the steamer's head sufficiently out to sea seemed to have been

due to the master having misjudged his distance from the land; and that was, in its turn, owing to another omission which the Court found no adequate justification for. The Court observed that there had been three cases of total wrecks before them recently, in every one of which the master of the vessel finding himself in the morning unexpectedly close to land, had misjudged his distance from it by calculation by the eye. In the master's second deposition (made at Trincomalie) he had stated that when the *Indus* struck the ground he thought that she was 8 miles from land, but found out afterwards that the distance was only 5 miles. He had given his evidence in such a plain, honourable and straightforward way that the Court recorded that they would not lay any stress on the fact that the first officer stated in his deposition given at Trincomalie that the message he sent the master was that land was in sight 5 or 6 miles off. But in two, if not in all three, of the cases the Court had alluded to the error as to distance from land would have been corrected, and consequently the loss of the steamer averted by *heaving the lead;* and on that point the master's evidence before the Colombo Court was as follows:—" I am aware of the liability to err in judging distance from land by the eye. I had the means at hand of being free from any possibility of error by heaving the lead, but I did not do so. If I had done so I could have known by my chart that I was within 5 miles of land "—in other words, he would have saved the vessel. For to say nothing of the information contained in Horsburgh's Sailing Directions (which he had on board) as to this dangerous coral shoal, he had himself stated that had he not misjudged the distance by sight, he would, instead of starboarding the steamer only one or two points, have altered her course right out to the eastward. The Court were opinion that the primary cause of the disaster, however, was presumably, on the evidence, a current setting from the N.E. which drove the *Indus* out of the projected course to the direction and distance from the expected position at 6 A.M., which were indicated by the expression " S. 26. W., 42 miles." This discrepancy between the actual and expected position of the steamer amounting to 42 nautical miles, was accomplished in 16 hours (from the time of leaving Madras) ; whether the deviation was really spread over the whole 16 hours the Court recorded that they would hereafter discuss. The vessel's speed had been 12½ knots per hour. The Court could not doubt from the whole tenor of the master's examination made at Colombo, and more particularly from what he said on the 4th December, that, in point of fact, when he shaped his course from Madras on the afternoon of the 7th he had no expectation of, and made no allowance for, *any current having a set to the S.W.,* but, on the strength of having experienced on the 5th, two days previously, on his way *to* Madras, a current indicated by the expression " S. 19° East, 19 miles," he calculated on experiencing a precisely similar current on his voyage to the southward on the day in question the 7th, and shaped his couse accordingly; indeed, he stated explicitly that he had considered that "it would be unnecessary to make any allowance for a current from the N.E." In the Court's opinion, there was a grave imprudence and (whatever might be the result) a grave risk incurred in having made no provision, or insufficient provision, for a current setting to the S.W. at that time of the year, on that coast. That was the normal direction of the current during the N.E. monsoon, and was usually its direction in the first week of November. He considered that the N.E. monsoon had not then set in. The master of the steam-ship *Manora,* however, considered that it had, and his vessel was then on a voyage from Point de Galle to Calcutta, and left Madras at 6 P.M. of the very day on the morning of which the catastrophe occurred. Whether the monsoon had or had not regularly set in at Madras on the 5th November when the *Indus* reached that port from Calcutta, there was at least a very large amount of probability that farther South the current would be found to have a *South-Westerly* set by the 7th and 8th, and it seemed to the

Court that there was no guarantee from experience, or any reasonable certainty that there would be any long continuance of the *South-Easterly* set which the *Indus* had experienced up to reaching Madras on the 5th. On the contrary, the master admitted not only that in the first week of November, taking the average of seasons, the N.E. monsoon might be fairly expected to have set in, and that during that monsoon a current flowing from the N.E. to S.W. might have been expected, but what was more to be noted in judging of the prudence or imprudence of his projected course was, that he admitted that there was a period of uncertainty at the change of the monsoons during which the direction of the current was *doubtful.* And again he was aware, from his professional knowledge, that the direction of the current was exceedingly uncertain and fluctuating on the coasts of Ceylon. He must have known that, even if the monsoon had not changed, he was then voyaging during that very "period of uncertainty between the changes of the monsoon;" and that whilst there might be some slight loss of time, but no danger, from a current to the S.E., there was actual danger should he experience a not improbable current setting to the S.W.—a contingency therefore to be carefully provided against. The very fact that the current was setting southwards instead of running northwards up the coast, itself gave a significant caution as to what might be deemed not improbable to occur, so far as the direction of the current might have been associated with, or influenced by, the monsoon winds. But in fact all room for discussion on that point in this case was determined by the terms in which the master admitted, in answer to a question by the Court, that the current which carried him from his course was such as might "have been thought likely to occur at that time of the year, but not likely to be so strong." This answer amounted to virtually giving up the question so far as concerned the *direction* of current to have been expected, or provided for, and rested the defence solely on the expected *strength* of it. The Court were of opinion that the master did not lay off his course under the influence of any apprehensions—which they considered that he reasonably ought to have entertained—of meeting any current having a S. W. direction, and consequently did not make any substantial allowance for any current having that direction, so that its probable force did not logically need any consideration, so far as concerned the prudence of the course steered. With respect, however, to its alleged unusual *force* there was nothing like sufficient material in the evidence on which to judge whether a set of 42 miles in 16 hours (equal to $2\frac{1}{2}$ miles an hour) indicated a current of such unusual strength, and therefore so altogether unlikely as not to have been a contingency to be provided for. For the purposes of this case the Court supposed that it did; though their impression was the contrary. But the Court did not think it possible to believe that there would have been anything very remarkable in a current of half that force on that coast. Now the master had marked with a blue line on the chart the course he had shaped, which was a straight line from Madras to a point about 12 miles East of Foul Point light-house at Trincomalie. And if the line had been drawn far enough to the westward of the line he shaped to halve the angle of the vessel's actual deviation in the whole journey from Madras (this represented only half the aggregate of the forces actually in operation) such a line, when prolonged, instead of clearing the light-house, must inevitably have taken the steamer ashore somewhere North of Trincomalie. In other words, on the course the master actually shaped, although a deviation caused by a current of the same direction, but of *only half the force he supposed he actually experienced,* would not have indeed landed him on the Mullaitivu shoal, it would have landed him inside the Trincomalie light-house, unless he previously struck on Pigeon island, or farther up the coast of Ceylon. A similar current, but of only a quarter the same force, would have made him barely clear the light-house on Foul Point. It did not seem to the Court likely that he would

designedly have shaped a course for any point which would have necessitated an abrupt diversion to the eastward after having reached it, in order to clear the light-house on Foul Point. The Court, therefore, arrived at the conclusion that the master not only, as he said, did not expect a current setting to S.W. which was, however, well known to be highly probable at that season, but that he made no allowance at all for the highly probable contingency of a current having that direction and a strength of even half a knot in the hour. The master of the steam-ship *Manora,* who had been on that line for twelve years, marked on the chart the course he invariably steered from Madras during the N.E. monsoon. That line passed not nearly 12 but 32 miles to the East of Foul Point light-house, and about 48 miles to due East of Mullaitivu (town), and a vessel steering that course, if it encountered the same current and deviation as the *Indus* was supposed to have done from Madras, would have avoided the Mullaitivu shoal by at least 7 (the master of the *Manora* stated 9) miles. The master of the Peninsular and Oriental Steam Navigation Company's steam-ship *Pekin* gave testimony, which, in one portion of it, was undoubtedly more favourable to the master of the *Indus,* and was meant to be so, but it was opposed to his own practice; for the course he adopted also lay considerably outside of the *Indus's* course, being about halfway between that and the *Manora's,* and so with the same current and deviation as the Court were then dealing with, would have cleared the shoal by about 4 miles. The Court observed that it was to be regretted that the *Indus* did not have on board the chart on a larger scale dated 1860. Some one deserved to be blamed for this, but the Court hardly thought that it would have been just to impute the blame to the master; and that if it had been on board, the result might have been different. It would not have affected the line laid down from Madras, shaped as that was without reference to any expectation of any current to S.W., and it could hardly have given any information as to the bearings of the ill-fated steamer before she struck the ground. It would not be just to assert or assume that he did not consult the chart at all after land was reported, for he was not asked that question, but the Court confessed that it looked very much as if he had not done so. The Court recorded that the Nautical assessor concurred with the whole of the opinion expressed by the Court, but more especially in the remarks upon the omission to heave the lead and consequences resulting thereby, and would add in reference to the point reserved for the opinion of the Nautical assessor, *viz.,* "whether it was possible to have prevented the *Indus* from drifting over her anchor," that he believed it was possible. It must have been evident to the master that the *Indus* was being suddenly carried in the direction of her anchor, and that if she went over it the catastrophe which actually happened would be very likely to occur; and, therefore, her going over the anchor was a thing to be avoided by every means within his power. The master admitted that the going astern of the engines at the time would not only have kept the vessel off her anchor, but would in all probability have floated her; and, therefore, the Nautical assessor was of opinion that it was a most unfortunate omission on his part in not having gone astern. His reason for not doing so was risk to the lives of the men in the boat receiving an anchor and cable under the stern, but the Nautical assessor disagreed with him in the risk to the men being so imminent. He considered that prompt measures might have been adopted, simultaneously with giving the order to go astern, for securing the safety of the men in the boats. An attempt to go astern should have been made, seeing the importance of it in saving the vessel at that critical moment. In the result the Court imputed blame to the master on two points;—*first,* in having failed to verify his distance from the land by promptly taking soundings as soon as land was discovered; had he done so, the Court presumed he would have turned the vessel's head free of all danger.

His not heaving the lead could scarcely be considered an error of judgment in a selection between different courses of action, but was an actual omission of a duty, probably caused by an erroneous confidence in the accuracy of his estimation of the distance by the eye—a most fallible and incompetent instrument for the purposes of accuracy. The degree of blame due for dependence on such a mode of judging distance was most difficult to measure. As a rule, the farther off the object, the greater was the probable amount of error, independently of the increased sources of error from atmospheric and other causes, and consequently (within of course certain reasonable and indefinite limits) the farther off he found himself, and the farther from shore the dangers marked on the chart, the more blameworthy was such dependence when everything depended on absolute certainty of knowledge. In this case the difference between 5 miles and 8 miles from land meant the difference between being only 1 mile or 4 miles from a dangerous and shifting shoal; and as that 1 mile had no existence in fact, the difference between an estimate of 8 and an actual 4 miles from land only, meant in this case the difference between probable destruction and being 4 miles safe from it. Furthermore, the Court could not reconcile the master's confidence in his own erroneous estimate of 8 miles with his knowledge that the first officer judged the land to be only 5, or at most 6 miles back. This would almost seem to have indicated a temporary obliviousness of the dangers off the Ceylon coast, on what part of which he was, anywhere South of Point Pedro, he could have but the vaguest guess. Whether, however, it was due to obliviousness of the charted dangers, or whether it was due to over-confidence in his eye-estimates of distance, the omission to heave the lead seemed to deserve more than censure, as the omission of what was under the circumstances an obvious and known duty, the neglect of which was the main cause of the loss of the magnificent steam-ship *Indus*. *Second*, the course he shaped from Madras (whether the season had been after, or on the edge of, the setting in of the N.E. monsoon), without adequate provision for the contingency of a set by current to the S.W., which he was not unlikely to, and actually did, encounter, and which current was the supposed prime cause of this sad catastrophe, was, the Court considered, also deserving of note as an error of judgment not warranted by the reasoning on which he adopted it, and an error committed in the face of the professional knowledge which the master had of the uncertainty of both the direction and force of the current, and of the high probability of meeting just such a direction of current as he had described—in fact the normal one for the season. At the same time, the Court found that his *intended* position on the morning of the wreck was only 8 miles West of the course invariably adopted by one of the experienced ship-masters, examined, and only 4 miles West of that of another; and the Court was, therefore, inclined to suspect that the deviation which the master of the *Indus* had distributed over the whole voyage of 16 hours from Madras, so giving a mean set of 2½ knots an hour, might really have occurred during only a comparatively small portion of that time, and possibly been chiefly due to what might be termed a *suction* into Palk's Straits. In that case, the deviation, or the bulk of it, might have happened during the time which followed midnight, *i. e.*, during a period of only five or six hours, or less. If this were so, it would represent a set not merely of 2½ knots an hour whilst it lasted, but one of, perhaps, double that amount and force; and on consulting the Nautical assessor, it was observed that a current of such a force would have been quite beyond ordinary or any known experience. In such a case no reasonable blame could be attached to the master for not having foreseen the contingency of a current possessing such extraordinary force and giving so great a set in so short a time. In point of fact, the Court had not the means of ascertaining the time in which the deviation actually took place, nor, consequently, the means of ascer-

taining the actual force of the current; but only knew its direction. Looking to that fact, and what seemed to have been the not very wide limits of 8 and 4 miles difference between the point which the master steered for, abreast the North point of Ceylon, and that which other navigators steered for in the same latitude of Point Pedro at the same season, the Court considered that the master was entitled to the fullest benefit of the suspicion which possessed their mind that he might have met a current of exceedingly abnormal force circling round the mouth of Palk's Strait and then southwards on the 7th and 8th November. This view, however, would not absolve him from blame for imprudence in having adopted a course inside of that selected by other shipmasters, and inside of what the result showed to have been the ordinary bounds of safety. That, however, was an error of judgment; and in the Court's opinion an error of that kind could hardly ever, if ever, deserve punishment beyond censure, except when a person had undertaken work for which he was incompetent and unqualified by training or knowledge, a crime which could not be imputed to the master. But his omission to heave the lead in order to ascertain accurately his distance from land by the chart, and so be able to judge correctly how much the steamer's course should have been changed that she might clear the dangers of the coast, could not properly be called an error of judgment, but, as already said, was a grave neglect of an obvious and known duty, involving the most serious risk to life and property and actually caused the loss of the *Indus* and her cargo. The Nautical assessor took the same view with the Court on this matter. The Court found the master in default for omitting to use the lead when he knew that he must have been near the land, and for that neglect and its consequences the master's certificate should be suspended for twelve months, and it was adjudged accordingly. The Court noted that the matter specially dwelt upon by the Nautical assessor, in the record of his opinion, being, as it seemed, not a criminal neglect, but an error of judgment when different courses of action had to be, and were, weighed, and an error committed in the interest of life, that it ought not to affect the term of suspension of the master's certificate.

80. The British iron ship CHARLES WORSLEY [of Liverpool, 1,360 tons register, official number 78827, age 7 years, classed at Lloyds 100 A.I.], from Chittagong to Dundee, with cargo of 1,829 tons of jute in bales. It appeared that the ship left Chittagong on the morning of the 10th November and was on her way to Dundee. All went well with the vessel up to the 13th November. On that day whilst the ship was in latitude 20° 02′ N., longitude 89° 16′ E. (Bay of Bengal), steering on the S.W. by W. course with all sails set, fire was discovered in the chain-locker; caused by the carelessness of an ordinary seaman (named William Morris) going below, contrary to the rules of the ship, with a naked light unobserved by any one. The master stated that one of his crew went down into the chain-locker in search of a sou'-wester at 9-30 A. M. on the 13th with a naked lamp from the forecastle, and whilst below he put a light into it; after finding the sou'-wester he was returning on deck with the light in this lamp, one of the panes of which was broken, when, near the entrance to the chain-locker, the lantern came in contact with some jute which was stowed close to the casing, the flame of the light being agitated by the wind, communicated with some of the jute, and the flames spread over the whole cargo. Alarmed at what had happened, he raised the cry immediately "ship on fire," whereupon the master after ascertaining the whereabouts, the cause of the alarm, and how it happened, without loss of time set the men to work with buckets to try and subdue the fire, but the smoke broke out with such violence as to make any hope of extinguishing it in that way futile. All hatches and other ventilation were at once battened down to try and smother the fire, but in spite of all their endeavours the fire defied the efforts made to subdue it. The vessel was then hauled to the wind to try and reach

the entrance to the Hooghly river, as being the nearest place for reliable assistance. The weather at that time was fine and the sea smooth; the wind being very moderate from N. N. E. and falling lighter, the master being afraid perhaps of not reaching assistance in time to save the ill-fated vessel, the fire bell was rung and the boats ordered to be got ready and provisioned, and both the anchors were kept in readiness in case of being required. At 2 o'clock that afternoon the smoke began issuing in dense volumes through the seams in the deck forward, and the master supposing that to be the seat of the fire, water was continuously poured over the seams and deck all round. Soon afterwards a signal of distress was hoisted at the peak, and one man sent aloft to keep a good look out for passing vessels. At 4-30 P. M. on the same day the British India Steam Navigation Company's steamer *Khandalla* was one point on the starboard bow, about 35 miles S.E. of the Eastern Channel light, whereupon the master of the steamer on observing the signal flying bore down on the *Charles Worsley* and discovered her to be on fire; the master of the ship then boarded the *Khandalla* and requested to be towed into Saugor or to a place of safety. A contract was immediately entered into, and whilst passing the hawser the flames burst through the deck forward, the foresail was then hauled up to prevent its taking fire, and in hailing the steamer to make haste the master learned from her that in getting the ship's hawser through the *Khandalla's* quarter chock the hauling line parted and she lost the end of the hawser. By that time the fire around the forecastle had taken such a hold as to render it impossible for any one to reach where the hawser was fast and recover the end; the fire spread rapidly and the vessel was one mass of flames from her foremast forward, and the plates on either bow were red hot. The master seeing that nothing could be done to save the ship, and the only chance of saving life was to take to the boats at once, ordered all hands to man the life-boats, when the fore part of the deck fell in, and the flames burst through the fore hatch. At 8-30 P. M. the master and crew abandoned the ship; they were taken off by the *Khandalla* and safely landed at Rangoon on the 17th. The *Khandalla* several times steamed round the burning vessel, but the fire still spread furiously, and after proceeding for half a mile she observed that the whole of the sails forward were in one blaze. The master of the steam-ship *Nevasa,* from Rangoon to Calcutta, stated that at 10-40 P. M. on the 13th November, he observed a ship on fire bearing N.W. by W. in latitude 20° 37′ N., longitude 88° 33′ E., and steered for her. At 2-15 A. M. on the following day he stopped and sent away the mail boats and gig, and found her to be the ship *Charles Worsley* abandoned. The masts were all standing and a furious fire raging round the foremast; the foresail, the foretopsails, and the topgallantsail were burnt away, but the royal was untouched. As the fire had not extended beyond the main hatch all sails on the main and mizenmasts were set and standing untouched, the mainsail and the main royal only being hauled up, signals were flying at the peak. At 2 A. M. the weather was calm, with a slight swell on the sea from the S.W.; the foremast fell over the side. The boats of the *Nevasa* returned after pulling round her, and finding her after davits swung out and only one small boat on the skids, and after repeatedly hailing her, concluded that the crew had deserted her in the boats. The *Nevasa* hung on until daylight, steaming round her dead slow and keeping a good look-out for boats. At 6 A M. the *Nevasa* passed close under her stern and found that the mainmast had gone at the deck, and the mizenmast at the cap, and all the wreckage hanging over the port side; the fire was working aft but was not abaft the main chains. Half an hour afterwards when the *Nevasa* left, the ship seemed completely burnt out forward, but showed no signs of sinking. The master of the steam-ship *Goalpara* reported that whilst on his passage from Rangoon to Madras, he passed the derelict vessel on the 16th on fire in latitude 20° 21′ N., longitude 87° 44′ E.; all the masts had gone, and some were still hanging about her beside the

forecastle; the head and poop were left untouched, also the bowsprit; otherwise the fire was raging fore and aft, the decks being all burned. The hull of this vessel whilst drifting along the Madras coast was towed into Cocanada harbour, whence she was subsequently towed to Calcutta by the steam-ship *Shahzada* on the 12th December. This derelict vessel had all her decks, ceilings, and every piece of wood-work burnt out of her, and nothing was left in the hold but the ashes of the burnt jute. The three masts had fallen and the 'tween deck beams were badly bent and twisted out of shape and the stringers buckled and fractured. The upper deck beams were also bent, but not so badly; the ship's sides were out of line, and the topside plating was badly buckled between the frames on both sides. She was put up to public auction at Calcutta on the 13th January 1886, but the highest bid being only ₹6,000 the sale was cancelled. She was subsequently sold by private bargain for ₹9,000, and the purchasers stripped her of all the metal parts in a mud dock at Ghúseri, on the Howrah side of the river. Original value of ship *Charles Worsley*, £27,200; cargo, ₹2,04,880. The crew, 24 men, were all saved in boats.

[A Special Court of Inquiry was held in the Court of the Deputy Commissioner, Rangoon, by the District Magistrate on the 25th and 26th November, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances attending the burning of the ship *Charles Worsley*. The Court recorded that, having assembled pursuant to citation, the papers and correspondence relating to the case were read and filed; the witnesses were then called and examined. The Court observed that the ship left Chittagong on the 10th November with a full cargo of jute in bales bound for Dundee, and up to the date of the fire nothing of importance occurred, the vessel having fine weather. On the morning of the 13th of the same month at about 9 o'clock, an ordinary seaman, named William Morris, asked the permission of the second officer, who was then on watch on deck, to get his sou'-wester from the chain locker; he descended without any lamp or candle, but not finding it he afterwards returned on deck and went to the forecastle and got an open oil lamp which he took down with him. When below he lit the lamp with a match and searched for the sou'-wester, but whilst ascending with the lighted lamp in his left hand the flame of the light being agitated by the wind communicated with some of the jute which was next to the chain-locker. Seeing that the fire rapidly spread all over, an alarm was at once raised by Morris, who was himself panic-striken, and the carpenter, who was in the fore hatch, instantly jumped down the ventilator and found the fire to exist on the top of the jute; he tried to extinguish it with his hands, but to no purpose, two buckets of water were then thrown on the fire, but smoke broke out in dense volumes which prevented him from remaining down any longer. Prompt measures were taken by the master and crew to batten down all the hatches and plug the ventilators, but finding that they were unable to master the fire, the master adopted a prudent course by steering the vessel towards the Sandheads as being the nearest place where assistance could be had. At noon the smoke and the fire commenced to break out all over the deck before the foremast, and the crew threw water on it, but unavailingly, as the head pump, which was abaft the collision bulkhead, was burnt away, and the crew had to draw water over the side. The force pump with apparatus being under the forecastle head, the men were unable to get to it in consequence of the fire. As a precaution for the security of the lives on board the master gave the order to get the boats provisioned and ready for lowering, also to have the starboard chain bent on to the anchor. At about 5-15 P.M. that same day the steamer *Khandalla* arrived and found her to be about 35 miles S. E. of the Eastern Channel light-ship, and commenced to tow her into Saugor, but the line parted, and she unfortunately lost the end of the hawser, and in spite of all endeavours the fire spread rapidly, and the ship

was one mass of flame from her foremast forward, and the plates on either bow being red hot. Immediately after this occurrence, finding that the steamer was unable to render any assistance, the master and crew with their effects were taken on board the *Khandalla* and safely landed at Rangoon. The master alleged that it was contrary to the rules of the ship to carry naked lights down below; no one saw the man with the light in his hand before he went below, but he was seen by the carpenter bringing the light up; the fire originated from the spar casing between the cargo and the chain-locker in 'tween decks which was used for the purposes of ventilation. He stated that the hose could have been used had the vessel been hove-to, but he did not think it would have been of much use, as sufficient water was obtained from the head pump, which was afterwards passed down in buckets. The first officer stated that on the morning in question he was in his bunk, and directly he heard some one sing out "fire"; he jumped out and ran forward and saw an ordinary seaman passing a bucket of water down the hatch of the chain-locker to the carpenter. He positively stated that the general rule since he had been in the vessel, which was more than two years, was that no naked lights were to be taken below even when in ballast. In his opinion everything was done to save the ship which could be done, and the master's orders were all carried out. There was no hose from the head-pump, and had there been a canvas hose leading to the chain-locker from the head pump, it would have been useless, as there was no facility for spreading the water; in other vessels of a similar build it was usual to store jute and such cargo in the place where the fire originated. The second officer swore that he had given permission to an ordinary seaman who had asked him to get his sou'-wester from down the chain-locker, but he did not see him descend with a naked light, which was contrary to the ship's rules even with a general cargo. His attention was first called to the fire by hearing some body sing out "fire"; he was working on the forecastle head, and instantly ran down to the main deck to ascertain the seat of the fire, when he saw the master and the rest of the crew there passing water forward from over the vessel's side. An ordinary seaman (Morris) confessed to having been down in the chain-locker with an open light to fetch his sou'-wester which had accidently fallen down, and that he did not ask permission to take the lamp, but as he had always seen an open light taken down, he accordingly did so; he was in the vessel only six months, and was not aware of any order against it, nor had he ever been in a jute ship. When he called out "ship on fire" the carpenter at once jumped down the ventilator, when he handed him two buckets of water; and within three minutes of the first alarm the master went forward and ordered the hatches to be battened down and the covers of all ventilators put on in order to smother the fire. He stated that he did not see any of the crew take down naked lights after the ship was loaded with jute. After a careful consideration of the evidence produced in this case the Court were of opinion that the ship *Charles Worsley* was destroyed by fire on the 13th November, when in the Bay of Bengal, in latitude 20° 02′ N., longitude 89° 16′ E. The Court were farther of opinion that the fire was caused by William Morris, a seaman, going into the chain-locker with an open light, and that such action on his part was in disobedience of orders. The Court considered that no blame was attached to the master and officers of the vessel, who did all they could under the trying circumstances to save the ill-fated ship, and that the master was justified in leaving her when he did, as it would have been impossible to save the *Charles Worsley*. The Court exonerated the master and returned to him his certificate.]

81. The Cingalese wooden brig PAIKIALETCHEMY [of Kottiyar, Ceylon, 90 tons register, no official number, age 7 years], from Kottiyar to Trincomalie, with passengers, but no cargo on board. On the 15th November the brig

was crossing the Kottiyar bay with passengers on board, when, at 8 A.M., the vessel with her sails hoisted was struck by a sudden squall from the N.E., and before any measures could be adopted she capsized near the Round island light-house, Trincomalie harbour (East coast of Ceylon), and having eventually been driven ashore, she broke up. Loss, value of brig, ₹2,000. No cargo on board. The crew, 8 men, and 30 passengers; the crew saved themselves on pieces of the floating wreckage, but all the passengers were drowned.

82. The British Indian wooden barque HAPSING [of Negapatam, 384 tons register, official number 12 of 1877, age 25, years, no class], from Negapatam to Maulmain, with a cargo of cocoanuts, piece-goods, rice and copper utensils, valued at ₹13,420, and ₹500 in cash. The barque safely arrived at Nancowry on the 6th November, where she left two of the crew for treatment in hospital, and on the next day proceeded on her course for Maulmain. On the 12th, when off Little Andaman island, it came on to blow a heavy gale from the S.E., and during the two following days the weather got worse; on the 15th a heavy squall struck the vessel, carrying away the tiller, and on the same day the sails and masts were carried away and the two gigs were destroyed and fell overboard; heavy seas filled the cabin with water which caused the vessel to spring a leak. From the 12th to the 17th the barque encountered a succession of gales, and cargo was thrown overboard but to no avail. After the vessel sprung a leak the crew kept the pumps going, at times with difficulty, as they were in constant danger of being washed away; 8 men were laid up sick with fever, the remaining 22 hands were quite exhausted through fatigue, and the water gained on them. On the afternoon of the 17th, it was found that there were 12′ of water in the vessel; at 5 P.M. she heeled over on her starboard side, and soon afterwards foundered about 40 miles to the eastward of Port Blair, and the 8 men who were sick went down with the barque. The long boat was got out a little before the disaster occurred, and the crew, 22 men, left the vessel in her and attempted to steer to the southward, but the wind being from the eastward, the survivors made a course drifting to the westward to try and reach the land somewhere near Negapatam; on the 30th of the same month 8 men (the master, mate, and 6 hands) died through exhaustion and hunger. On the 2nd December the remaining 14 hands were picked up by the ship *County of Carnarvon,* about 270 miles westward of the Andamans, in latitude 12° 50′ N., longitude 87° 40 E. (whilst that vessel was proceeding from Chittagong to Mauritius), and safely landed at Port Louis on the 4th January 1886; two men died shortly after being taken on board. The survivors (12 hands) were subsequently sent on to Calcutta in the steamer *Adria* for conveyance to their homes. Loss, value of barque, ₹25,000; cargo, ₹13,420. The crew, 32 men; 18 lives lost. (The abandonment of the barque was due to the repeated injuries she sustained in the gale from the 12th to 17th November, and the tindal acted wisely, for the safety of the lives of the crew, in leaving the vessel when he did. The tindal and the crew acted with great courage and resolution in their difficult and dangerous situation, notwithstanding that part of the men were disabled on account of illness, but the tindal unfortunately perished through exhaustion and hunger in the boat).

DECEMBER.

83. The Native mahangiri NÁRAN PASHÁ [of Porbandar, 52 tons register, official number 63, age 12 years], from Calicut to Navibandar, with a cargo of cocoanuts, and teakwood logs and planks, valued at ₹6,700. The tindal stated that three days before reaching Navibandar he met with very bad weather from the S.E., which caused the mahangiri to spring a leak. By active exertions the crew kept her afloat until 4 A.M. on the 4th December, when the tindal tried to

steer her into the roadstead, but failed on account of a sudden squall, and she stranded on the Undelia Pir rock to the East of Dhamlej roadstead (Káthiáwar coast) and broke her back. Loss of the mahangiri was estimated at ₹2,000; cargo, worth ₹158, was lost, the remainder was saved. The crew, 8 men, were saved by wading ashore.

84. The British iron flat BORPETTA [of Calcutta, 700 tons burthen, no official number, quite a new vessel, belonging to the River Steam Navigation Company], from Narainganj to Calcutta, with a cargo of about 900 tons of bales and drums of jute. The flat struck on a snag, at 5 P.M. of the 11th December, off Attara Banka in the Sunderbuns. There appeared to have been great changes in the river, caused by the bank being cut or washed away through the force of the current, which fact was unknown to the native pilot or any one on board. Original value of the flat *Borpetta,* ₹70,000; cargo, ₹77,840. The crew, 18 men, were all saved in the steamer *Scind's* boats.

85. The British iron screw steamer TANGIER [of London, 1,240 tons register, official number 81645, schooner-rigged, age 5 years, classed at Lloyds 100 A. 1.], from Madras to London *viâ* Suez canal, with a cargo of 1,878 tons of seeds, indigo, hides, turmeric, horns, &c., valued at ₹4,70,000. It appeared that the steamer left Madras at 8 o'clock on the morning of the 18th December, with a general cargo, bound for London, being in good condition and well found in every respect; she had only one passenger on board. On leaving Madras harbour the course steered by the standard compass was S. by W., the weather was fine, with occasional showers of rain, and the wind blowing a moderate breeze from the N.E. When off Pettapolliem soundings were taken, giving first cast no bottom at $7\frac{1}{4}$ fathoms of water; the master evidently had either altered his course half a point more towards the shore than he had been previously steering, the vessel's speed being at that time nearly 5 knots, or insufficient allowance must have been made for the current; the compasses and chronometers on board were all in good order. At 11 A.M. the weather was extremely fine and clear, and the *Tangier* unhappily stranded—just three hours after leaving port—on a sunken rock 2 miles off Pettapolliem, the Tripalur temple bearing N.W. by W $\frac{1}{4}$ W., distant $4\frac{3}{4}$ miles (Coromandel coast). The steamer struck twice and passed over, the engines being kept going slow for the purpose of obtaining good soundings. A quarter of an hour after the accident it was reported to the master that the fore hold had filled, and that the main hold was making water very rapidly; when it was found that she must inevitably sink in deep water, the master decided to beach her to save the vessel and her cargo if possible, and accordingly ran her ashore on the outlying patches of rock near where the steam-ship *Karamania* was then lying aground. News was sent to Madras and masulah boats and coolies were at once despatched to land the cargo. On the 23rd the Agents reported that the vessel was lying on a sandy bottom with the fore hold and the fore peak full of water and the main hold full to the 'tween-decks; that the prospect of eventually getting the steamer off was improving; that she was discharging her cargo rapidly for survey and repairs; and that the steam-pumps would be at work as soon as possible, after which attempts would be made to get her off. The after hold cargo on being landed turned out to be not damaged at all; that the engine-room bulkhead was leaking slightly, and the vessel had a large hole knocked in her bottom in the fore hold and also in the ballast chamber. On the 11th January 1886 the divers found that the pumps were not sufficiently powerful, but were however able to keep her free in the main hold, and others were on the way; also that the vessel could not be repaired at Madras, but should proceed to Calcutta in tow in consequence of the rudder post having broken and the main piece of the rudder bent. The chief engineer reported that in the fore hold a 12″ centrifugal pump had remained idle for four days, *viz.,* from the 15th until the 19th January, during which time the master was

away on business at Madras. On the 16th a portable engine and an 8" centrifugal pump arrived, which were at once set up and connected as far as possible; not being able to complete the suction connection on account of want of depth. Two days afterwards the master returned, and the European diver, who arrived some hours before, sent one of his assistants (a native) down the fore hold in the diver's dress to clear away the sand and thus enable the engineers to complete the connection of the 8" pump. But he was unable to do so, as he no sooner cleared the place than it was filled up again. On this being reported to the master the chief engineer was instructed to start the 12" pump and clear the hold. This was done, the pump continuing to hold the water down to the bags of castor-oil seeds the surface of which was irregular, the piles of bags being out of water in places, and there were deep holes in other parts; but the water was often pumped nearly as low before. In consequence of a report that the leak had been discovered some days previously, the chief engineer had gone below, accompanied by the second engineer, and carefully examined the limber for above a quarter of an hour from which the water was forcing its way, but failed to find the fractured plate. On the 19th a report was made to the master that the bags were clear of water, and at 2-30 P.M. that same afternoon he at once walked forward with the first officer and the European diver. They descended to the bags in the lower deck to inspect the nature of the leak, followed by the vessel's carpenter, a maistry or serang, and three coolies in the service of the diver; they remained for a short time, when the master returned to the 'tween-deck and complained of the state of the atmosphere, saying "he came up for a little fresh air." The castor-oil seeds, hides &c., in the steamer's hold having soaked for nearly a month, generated, on the water being pumped out, a poisonous gas, and the men who went there inhaled it and dropped down in the water, which was again rapidly finding its way into the vessel. At that moment an alarm was heard that a coolie had fainted and had fallen down; he was followed by another whilst making an ascent to the deck, and at the same time the first officer shouted out that the European diver also had fallen down in a swoon. Whereupon the master immediately turned and proceeded to their assistance, accompanied by the chief engineer, who was in the 'tween deck; he gave his orders distinctly and calmly, and the coolies were sent up under his direction. A sling was passed round the diver, when it was perceived that the first officer was falling down in a swoon; thereupon the chief engineer, who was close by, placed his arm around him and, with the help of the master, urged him on to the ladder. The air became so insufferable that the master caught the effects of the poisonous gas, and exclaiming, "I am going," staggered, and then plunged head foremost towards the shifting boards, and his head striking against them, he fell face downwards in the water and was completely immersed, never moving with life again. The chief engineer, feeling the gas like a dense weight on his face and lungs, instantly left the master and with much difficulty gained the 'tween-deck, soon recovering; on this the native diver then got down and lifted the master out of the water; the boatswain accompanied him with a rope which the diver took from him in order to pass round the master, but being overcome fell; on rising and trying to clear the sling from his own legs he fell again in deep water and disappeared; thereupon the boatswain returned to the 'tween deck and tying a rope round himself descended with a man (an ordinary seaman) and secured the master. In the meantime the first officer had been secured by the crew and hauled up; after which the master and the European diver were drawn up and every means available on board was used to restore life, but to no effect in the master's case, who appeared to be, and was, dead. The body of the native diver was recovered about half an hour afterwards; he had bravely endeavoured to save the master, and lost his life in the attempt. The crew were encouraged from the outset in their efforts to restore the European diver and the first

officer to life, the latter improving wonderfully; and throughout the short period of time, in which th elamentable accident described took place, every one exerted himself, and there was little excitement beyond what might naturally be expected under the painful circumstances. At 9-30 P.M. medical aid from Tiruporur arrived and the diver was removed ashore, but unhappily succumbed to the effects of the poisonous gas at 4 A.M. on the 20th January. On the 19th February the steam-tug *Clive* proceeded from Calcutta to the scene of the disaster, and after making a few attempts to get her off, ultimately succeeded in floating the *Tangier* on the afternoon of the 25th, after having been aground for 69 days; she was then towed into Madras roadstead, where it was found impossible to effect even temporary repairs, and the Surveyor to Lloyds' Agents deemed it necessary for her to proceed to Calcutta in tow, as being the safest and nearest port for docking and repairs. On the 6th March the steamer arrived at Calcutta under charge of the first officer and in tow of the tug *Clive,* and was eventually put into the Howrah dry dock, and on the 23rd was partly examined by Lloyds' surveyor. He reported that there were about 36 plates in the bottom more or less damaged; the bottom was badly damaged in No. 1 hold on both sides; also under the water ballast tanks forward and under the engine-room on port side; the rudder post was broken off at the 17′ mark; and the rudder stock much bent over to the port side. The damage to the frames and floors had not been ascertained, and before the surveyor had completed his examinations the Agents decided to sell her, as it was considered that it would require a very heavy outlay for repairs, &c., to the vessel before she could be re-classed, the expenses already incurred being ₹70,000. On the 26th March the *Tangier* was put up for sale at a public auction held at Calcutta, and as the highest bid made for her was only ₹42,000, which did not come up to the reserve, the sale was withdrawn. She was subsequently purchased by private contract at Home by the British India Steam Navigation Company for the sum of £4,000. Original value of the steamer *Tangier,* £24,400. The cargo was partially lost, value ₹2,35,240; it was reported that the cargo salved amounted in all to 1,080 tons, of which 780 tons being in a sound condition was re-shipped and eventually forwarded to its destination, and 300 tons damaged cargo was sold at Madras by public auction and realized ₹1,06,000. The crew, 27 men, and one passenger; the master, and the European and native divers died from the effects of foul gas whilst inspecting the nature of the leak in the vessel's hold.

[This Department has been unable to ascertain locally from the Agents the particulars of the disaster to the vessel, and there appeared a disposition to avoid giving any information. It seemed that an investigation was held at Madras, and it was unavoidably postponed from time to time owing to the illness of some of the witnesses, and after the demise of the master it was quashed; the first officer stated that the master previous to his death took the blame solely upon himself, he being in charge of the bridge at the time when this unfortunate steamer struck the ground.]

The Governor of Madras observed that in consequence of the lamentable death of the master no Court of Inquiry was held to inquire into the circumstances attending the stranding and loss of the steam-ship *Tangier.*

86. The British wooden barque CYRENE [of Salcombe, 592 tons register, official number 68894], from Cochin to London, with a cargo of cow and buffalo hides, and coir goods, valued at £20,000. It appeared that on the 18th December the barque was lying at anchor in the Inner harbour of Cochin, laden with a full cargo preparatory to proceeding to sea the next morning in charge of a pilot. On the 19th, at 5-10 A. M., the pilot boarded her and commenced heaving short under all plain sail; at 6 A. M. he weighed, and there being a fair wind from E. by S., a moderate land breeze with suitable tide, set all sail and proceeded down the harbour; the vessel steered to south-westward and the yards were almost square.

At 8·30 A. M., on the vessel reaching the bar in 17′ of water between the bar buoys, the pilot perceived to his very great surprise a sudden heaving swell from the southward and westward—a fact he never before experienced at that time of the year. This ground swell caused the barque to lose steerage way, and she canted over to the southward and grounded on the bar, whence she gradually dragged until hard and fast on the sands at the South side of the entrance to Cochin river (Malabar coast); thereupon the pilot endeavoured all he could, with the aid of sails, to try and drive her off her difficult position, but without success, and the swell began sweeping her more to the southward. Subsequently a kedge anchor was run out over her stern, but unfortunately it came home, it was then picked up and dropped a second time, but the line parted and the anchor lost; the vessel after bumping several times lay hard aground. At 11 A. M. on signals being made, the Port Officer and Lloyds' Agents at once arrived on the scene of the disaster with lighters and coolies, when the crew, with their assistance, commenced rapidly discharging cargo. They advised the master either to engage the assistance of steam or throw all the claims on the owners; to the former proposal the master consented for a lump sum of £350. Arrangements were accordingly made, and the master waited till 3 P. M. for the steam-ship *Koh-i-nur* to tow the barque off; but during the interval that vessel not having arrived and the barque labouring considerably, the master carried a stream anchor out from the port quarter with a 11″ hawser attached to it and hove it taut. In the meantime, as the tide began to rise, the pilot kept heaving out, and about 6·30 P. M. that same day she was successfully hove off during half-flood, without any assistance of steam-power and safely anchored by the pilot in the channel in $4\frac{3}{4}$ fathoms of water, with the light-house bearing E. by S. $\frac{1}{2}$ S.; on the wells being sounded, it was discovered that the barque was making water at the rate of 21″ per hour, when the pumps were at once set on. On the following day the weather was moderate during the morning, but in the afternoon a fresh wind was blowing with much rain, and on examination of the hold it was found that although the pumps were kept constantly going with the assistance from the shore, the water did not decrease. On the 21st, moderate weather with light passing showers, when at 11 A. M. Surveyors came on board and ordered the barque to proceed immediately into the port and there discharge her cargo for the purpose of sighting her bottom; the pumps were being carefully attended to day and night, when, in the afternoon, it was found that the vessel was making 20″ of water per hour. The next day the weather being fine throughout, at 9 A.M. the crew proceeded in the vessel's boats and brought back her two anchors with the 11″ hawser stranded, and the loss of a 6″ and a 5″ hawser, which were slipped when floating the barque; throughout the 23rd the weather was fine, the crew were variously employed, and the pumps were constantly going. The Surveyors examined the barque on the 22nd December, and recommended that the vessel should enter the Inner harbour and there discharge her cargo; afterwards a second survey should be held in order to ascertain the amount of damage. They reported that the scarphing of the waterways was started on both sides, and the pitch round the stanchions cracked, showing signs of strain; also that the vessel was making 17″ of water per hour. On the 24th there being a gentle breeze with fine weather, the pilot, after weighing the anchor, set sail at 11 P. M. and proceeded with the vessel into the harbour, where she was securely moored with 30 fathoms of chain each way; the cargo was discharged as fast as possible. The Surveyors visited the barque on the 5th and 6th January 1886, and found the locality of the leak was in the garboard strake; several of her iron knees had been broken; and one of the main beams in the lower hold cracked; also that her iron stringer was started. They advised that the vessel be hove down at Vypeen and repaired, and a contract was made for that work for ₹1,500. The

cargo was all landed in good order, excepting a few bales which had burst their hoops, and the bone-dust, to part of which the water had got. On the 25th the *Cyrene* was hove down and the stripping of the garboard strake was commenced. After nightfall, however, it was found that the water in the barque was gaining, and about midnight an attempt was made to straighten her up, but it was perceived that she would not right. By next morning she had filled to the level of the water, and her bilge was resting on the bottom, the tide flowing in and out of her. On the 30th an examination was held, and the Surveyors advised employment of steam pumps for the purpose of floating her; the two largest pumps which could be procured at Cochin were sent on board, but they were not powerful enough to have any effect. Subsequently it was decided to employ a Civil Engineer from Cochin, who agreed to pump the vessel out for ₹2,000, and to keep her so pumped for at least 20 days whilst she was being repaired on both sides; arrangements were also made to keep the barque pumped out for a longer time should it be found necessary. On the 8th February the Surveyors examined her starboard side, and found that the keel was seriously injured, the garboard strake opened, and the vessel much strained. On the morning of the 20th Lloyds' Surveyor, accompanied by a Civil Engineer, proceeded on board the barque *Cyrene*, lying afloat at Vypeen in the Inner harbour of Cochin, in order to make a survey on the bottom of that vessel. After a careful examination they reported the vessel hove down on her starboard side, and the whole of the port side of the keel exposed to view, and that from her fore foot aft 25′ to 30′ of the keel proper had been very seriously damaged—in fact almost ground to pieces up to the edge forming the lower part of the seam of her garboard strake. This must have arisen from the heavy pressure and motion of the barque whilst she was aground; several large splinters had been broken off from the keel, and some remained attached to it by a few fibres only; others were easily detached by hand. Many of the through bolts were exposed to view 3″ and 4″ in length, and others, the ends of which had been laid bare, protruded some distance with their washers quite loose; and the remaining portion of the keel was in better condition, but it was evident that it had been much shaken, and had worked in such a manner as to start and spew out all the oakum from the garboard strake. The Surveyors stated that on looking along the keel it was found wavy, an evident fact that the whole of the vessel had been materially strained, and twisted out of shape. On the whole, they concluded that in her then condition the *Cyrene* was not fit to undertake a long sea voyage, and that she could not be made fit to do so at Cochin, where there were no docks or slips; and as all the repairs needed for the barque was in the bottom, it was impossible to effect them when hove down. The Surveyors were of opinion that to put her into a thoroughly seaworthy state the foremost portion of the keel should be entirely removed and replaced by a new one; all the through bolts in the rest of the keel driven home and reclenched, and a thorough overhauling, unbolting and straightening of the vessel carried out; and, in fact, the repairs required to make her seaworthy could only be done in a graving dock. The Surveyors visited the barque on the 27th for the purpose of surveying her finally and ascertaining whether the repairs could not be done at Cochin. They reported that upon mature consideration they found the *Cyrene* to be so seriously damaged by her contact with the ground to the South of the Cochin river bar that she must necessarily proceed either to Bombay or Calcutta, and there be placed in dry dock and undergo heavy repairs, provided she was to be made fit for a sea voyage to carry cargo. The Surveyors were also of opinion that the cost of such repairs in either of the above parts, together with other incidental expenses, would amount to a sum considerably in excess of her value even when so repaired; the expenses already incurred being ₹12,500; this sum included £350 agreed to be paid to the steamer *Koh-i-nur*,

but whose services were not needed, and the matter having been referred Home for arbitration, was given against the barque. The Surveyors accordingly pronounced her a constructive total loss, and recommended her to be sold by public auction for the benefit of the concerned. She was aground for 10 hours. Original value of the barque *Cyrene*, £3,000. The cargo was partially lost, value ₹3,500; the sound portion of the cargo was eventually forwarded to its destination in the ship *Duke of Abercorn*. The hull, with her masts, yards, sails, boats, stores, &c., was sold by public auction at Cochin on the 6th April 1886 for the sum of ₹10,550; crew, 13 men. No lives lost. (The pilot attributed the disaster to a heavy ground swell, which was so sudden and unexpected during the month of December, that he could not have acted otherwise than he did; the pilot had very recently conducted the barque *Gartmore*, over 1,000 tons register and drawing 15′, over the bar with 17′, quite safe and sound.

[A Marine Court of Inquiry was held in the office of the Port Officer, Cochin, on the 28th and 29th January, by the District Magistrate of Malabár, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances connected with the grounding of the barque *Cyrene* on the morning of the 19th December, under charge of the senior pilot of the port of Cochin. The Court recorded that in this case, for the reasons which will be indicated hereafter, they considered it unnecessary to proceed with the more formal investigation sanctioned by the above Act; therefore, under the provisions of section 7 of the Act, they only made a preliminary investigation, taking the evidence of the master, the pilot and of others whose evidence appeared to have been material. The Court having assembled pursuant to citation the papers and correspondence relating to the case were produced, when the defendant, a senior pilot of the port of Cochin, was called, and on conclusion of the evidence of all the witnesses, the Court adjourned until the 29th, in order that they might consider their finding and order. The Court after having read their decision, forwarded their proceedings and report for the consideration of the Governor of Madras. From the evidence before the Court, it appeared that the barque *Cyrene*, drawing 13′ 6″ forward and 14′ 2″ aft, left her anchorage in the Inner roadstead of Cochin, under charge of the senior pilot, at 6 or 6-30 A.M., on the 19th December; the flood-tide had commenced at 4 A.M., and high-water occurred about 9-30 A.M. There was a land wind, and the pilot set all plain sail and steered a course which would have taken him out in mid-channel between the North and the South buoys marking the bar; but there was a strong flood-tide running in, and a swell rolling in from the N.W. The tide and the swell together apparently drove the vessel out of her proper course, and she grounded between 8 and 8-30 A.M., on the sand bank close to the southern buoy, at a distance from it estimated at from two-thirds of a cable's length (160 yards) to about a ship's length (50 yards). After striking the ground the barque's head, which had been pointing towards mid-channel between the North and the South buoys, swung round by west and south till she lay with her head to S.W. In that position she was from one to two ships' lengths (50 to 100 yards) from the spot where she originally grounded. The South buoy was then on her starboard quarter; it had at one time been close alongside the vessel amidships on the starboard side. The *Cyrene* bumped after grounding, and drifted farther on the sand bank, striking heavily till 6 P.M. on the same day; the master then hove her out by the stern with the aid of two hawsers attached to a bower anchor after the flood-tide had begun to make; having, by means of backing her head sails, got her head fair for mid-channel, he asked the pilot to take her out to the Outer roadstead, and that manœuvre was done the same evening. The Court observed that the pilot in his examination deposed that the barque grounded in mid-channel between the two buoys marking the bar a short distance before she reached the bar, and that she afterwards

shifted her position to one about 70 to 80 yards due South of the South bar buoy. The Court had no hesitation in stating that the pilot's assertion was false; but they were convinced from the statements made by the officers of the vessel and by the seaman who was at the wheel up to within three minutes of the time of the accident, that she struck the ground at the place described above, and did not after the first casualty shift her position more than two ships' lengths, *i.e.*, 100 yards. The Court were convinced of the accuracy of what they had just stated, from the fact that after the casualty and slueing round with her head to the S. W. the black or southern bar buoy was right alongside of the *Cyrene*, which could not have been the case had she grounded on the spot indicated (*viz.*, mid-channel) by the pilot; the South buoy was actually touched by one of the witnesses when it was alongside the vessel. Moreover, the fact that the barque without having discharged any material portion of her cargo proceeded out to the Outer roadstead on the same evening, showed that there was no want of water in the bar. The master took particular notice of the fact that there was 17′ of water on the bar when he passed out, and his vessel was drawing only 14′ 2″; further, five days later, she was with the same draught again brought over the bar by a second pilot assisted by the Port Officer. The Court observed that the course stated to have been steered, *viz.*, W. by S., as deposed by the pilot, was not borne out by the position the vessel was in when the catastrophe happened. The Court were convinced that the pilot did not pay sufficient attention to the set of the tide on his way from the Inner anchorage towards the bar. The set of the tide was on his starboard bow, and carried the vessel to the southward and eastward at a rate, on his own showing, from three to four knots per hour. It was evident, therefore, that whilst the barque's head was pointed to pass between the two bar-buoys, she was actually sagging to the S.E., and not making the course she ought to have made to take her in mid-channel between the two bar buoys. The neglect of watching the effect of the tide on the vessel whilst sailing along necessarily placed her just in the position where she grounded, and the swell then prevailing slued the barque right round on her heel after she first touched the ground. After a careful consideration of the evidence, the Court were of opinion that the grounding of the barque *Cyrene* on the sands close to the southern buoy, at the entrance to the Cochin river, on the morning of the 19th December, was owing to the want of tact and knowledge displayed by the senior pilot regarding the river and the tides, even after such long experience as he has had—nearly 21 years—and the Court only attributed it to his natural want of intelligence. He was, the Court considered, sufficiently qualified for *the very ordinary routine* of sailing in and out of the river with a fair wind, but he was not qualified for manœuvring a vessel in any position of emergency. The Court observed that the pilot's evidence in this investigation would bear them out in their conclusion. The Court, therefore, recommended that, as there had been during the last two years a decided increase in the number of vessels electing to come into the Inner harbour of Cochin by reason of the favourable state of the bar, the senior pilot be directed to send in his papers either for his gratuity or pension if entitled to it, and that a more efficient person be found to replace him. The Court recorded that as the facts disclosed in this investigation did not involve, or appear likely to involve any question as to the cancelling or suspension of the certificate of the master or the first officer, the Court did not, under the first portion of section 13, clause 1, of the Act, constitute any persons having experience in the Merchant service as their Nautical assessors. Nor did the Court consider it necessary under the latter portion of section 13, clause 1, to appoint as their assessor any person conversant with maritime affairs under the circumstances above detailed.]

The Governor of Madras after having perused the papers in the Court of Inquiry held under Act V of 1883, directed the Port Officer of Madras to arrange

for the early retirement of the accused—a senior pilot of the port of Cochin—who had on a previous occasion been unfavourably reported on to Government.

(It was reported in May 1886 that the Cyrene was still entire and not broken up, but that the purchasers intend to tow her to Bombay after the monsoon, with the object of undergoing a thorough repair.)

87. The British Indian muchwa DARIA PALAK [of Mangalore, 14 tons register, official number 15 of 1883, age 7 years], from Calicut to Mangalore, with a cargo of bamboos, valued at ₹360. On the 21st December the muchwa was entering the harbour of Mangalore by the old or Gúrpúr mouth, with a light breeze from the westward; but at 10 A.M. the wind suddenly chopped round to the southward, blowing fresh; the tindal let go both anchors, and as the muchwa was in a very narrow channel and close to the shore, she dragged her anchors and drifted ashore on the northern sand spit and ultimately broke up. The disaster could have been avoided after the muchwa got into the mouth of the river, had the tindal not attempted to cross the bar without a commanding breeze, so as to have had full control over the vessel at the time she got into the narrow channel. It was broad daylight, the weather was fine and clear, but a little cloudy, and there was a fresh breeze from the southward. Help was at once afforded by the crews of other vessels, as also by the owners of the cargo of the muchwa, but all efforts to save the muchwa proved fruitless. Loss, value of muchwa estimated at ₹2,500; cargo, ₹360. The crew, 5 men, and one passenger, were saved by wading to the shore. (This catastrophe was caused through want of due care on the part of the tindal.)

TABULAR STATEMENT OF THE CASUALTIES

ARRANGED IN THE ORDER IN WHICH THEY OCCURRED.

Number.	Name of vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
1	*Rohomanee*	199	Cingalese brig	3rd January.	Tuticorin	Ponáni	Iron and salt; value not reported.
2	*Laxmiprasad*	27	British Indian padow	6th do.	Bombay	Dholera	Cocoanuts; value ₹1,641.
3	*Luckhi Bilas*	66	Ditto schooner	7th do.	Narainganj	Chittagong	Mustard seed; value ₹750.
4	*Mattookumar Lakshmy*	186	Ditto brig	Do. do.	Ditto	Ditto	In ballast
5	*Subramoniem*	61	Ditto schooner	8th do.	Tuticorin	Colombo	Chillies, onions, cloth, &c.; value ₹4,000.
6	*Subramonia Puravy*	82	Ditto ditto	Do. do.	Colombo	Tuticorin	Betelnuts, cocoanuts, &c.; value ₹1,600.
7	*Hindoostani*	13	Ditto muchwa	9th do.	Bombay	Alibág	None, but ₹1,500 in cash.
8	*Maharaja*	1,046	British screw steamer	Do. do.	Maulmain	Calcutta	Teak timber and sundries; value not stated.
9	*Chindwara* (See Wrecks No. 3.)	1,486	Ditto ditto	11th do.	Calcutta	Bombay *viâ* Indian coast ports.	General; value not given.
10	*Ravenscrag*	1,263	British ship	12th do.	Chittagong	The United Kingdom.	Jute; value not reported
11	*Shastri* (See Wrecks No. 4.)	83	British Indian steamer	13th do.	Harnai	Bombay	420 passengers, but no cargo on board.
12	*Mount Tabor*	1,494	British screw steamer	Do. do.	Suez	Rangoon	General; value not stated.
13	*Khersonese*	1,711	British ship	16th do.	Cardiff	Bombay	2,000 tons coals; value ₹20,000.
14	*Gaoriprusad*	23	British Indian padow	Do. do.	Bombay	Dholera	Cocoanuts; value ₹545
15	*Khudabux*	29	Ditto ditto	Do. do.	Ditto	Ditto	Gunny bags, coir yarn, and cocoanuts; value. ₹1,942.
16	*Willingale*	1,312	British screw steamer	17th do.	Liverpool	Penang	General; value not given.
17	*Labsavay*	20	British Indian padow	19th do.	Bulsár	Dholera	Bamboos; value ₹432.
18	*Pharos*	50	British schooner	20th do.	Employed as a	Buoy-vessel in the	Rangoon river
19	*Avagyee*	247	British screw steamer	Do. do.	Rangoon	Tavoy	General; value not stated.
20	*Wingsang*	1,517	Ditto ditto	21st do.	Calcutta	Hong-Kong *vid* The Straits.	Opium and general; value not reported.
21	*India*	2,634	Ditto ditto	Do. do.	Ditto	London	General; value not given.
22	*Saint Dunstan*	1,451	Ditto ditto	22nd do.	North Shields	Bombay	Coals; value not reported.
23	*Frans*	356	Swedish barque	24th do.	Calcutta	Port Natal	Rice; value not stated.
24	*Kámakshama*	104	British Indian schooner	27th do.	Chittagong	Cochin	Rice and paddy; value ₹4,120.
25	*Chusan*	2,651	British screw steamer	28th do.	London	Bombay and China.	General; value not reported.
26	*Frans*	356	Swedish barque	Do. do.	Calcutta	Port Natal	Rice; value not stated.
27	*Accomac*	1,629	British screw steamer	29th do.	Liverpool	Bombay	Steel rails, &c.; value not given.
28	*Pharos*	1,449	Ditto ditto	Do. do.	Port Said	Kurrachee	In water ballast

Waters during the year 1885.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
On the coral reefs to the Southward of the Church or Vauthevoo island, Tuticorin harbour.	Gulf of Manár	Grounding. Carelessness of the tindal.	None lost	None lost.
On the bar in the Khún creek	Gulf of Cambay	Ditto ditto	Ditto	₹771 worth was lost.
Abreast of Mr. Finney's Yard in the Kornafuli river.	Chittagong coast	Collision with the brig *Mathookumar Lakshmy*. Carelessness of the tindal of the brig.	Ditto	None lost.
Ditto ditto	Ditto	Collision with the schooner *Luckhi Bilas*. Carelessness of the tindal of the brig.	Ditto	.....
In latitude 8° 34′ N., longitude 78° 16′ E.	Gulf of Manár	Collision with the schooner *Subramonia, Puravy*. Carelessness of the tindals of both schooners.	Ditto	None lost.
Ditto ditto	Ditto	Collision with schooner *Subramoniem*. Carelessness of tindals of both schooners.	Ditto	Ditto.
2 miles to the Southward of Kundari island fort.	Bombay coast	Capsized. Heavy weather	Ditto	Totally lost.
On the Eastern edge of the Kyauktan shoal, in the Salween or Maulmain river.	Burma coast	Grounding. Carelessness of the pilot.	Ditto	None lost.
8 miles W. by N. ½ N. of the Calicut light-house, in 13½ fathoms of water.	Malabár coast	Collision with the pattimar *Futhe Salaam*. The pattimar not exhibiting lights.	Ditto	Ditto.
On the outer bar spit, 100 feet inside the outer bar buoys, Kornafuli river.	Chittagong coast	Grounding. Unavoidable	Ditto	Ditto.
Off Pacha bandar, in the Harnai harbour	Bombay coast	Collision with the muchwa *Khengty*. The muchwa not exhibiting lights.	Ditto	.....
In the Liffey reach, Rangoon river	Burma coast	Loss of anchor and chain. Unavoidable.	Ditto	None lost.
60 miles S. W. of Cape Comorin, in latitude 7° 30′ N., longitude 76° 50′ E.	Malabár coast	Loss of masts, sails, &c. Cyclone	Ditto	Ditto.
In the Khún creek, opposite the light-house	Gulf of Cambay	Capsized. Carelessness of the tindal	Ditto	₹142 worth was lost.
Ditto ditto	Ditto	Ditto ditto	Ditto	₹190 worth was lost.
Exact position not given	Red sea	Damage to engines. Not reported	Ditto	None lost.
Close to the North bank off the Khún creek	Gulf of Cambay	Foundering. Carelessness of the tindal.	Ditto	Partially lost; value ₹145.
Off Elephant point, entrance to Rangoon river, Gulf of Martaban.	Burma coast	Collision with the screw steamer *Avagyee*. Carelessness of the master of the steamer	Ditto	.....
Ditto ditto	Ditto	Collision with the schooner *Pharos*. Carelessness of the master of the steamer.	Ditto	None lost.
On the bank above the Ulabaria creek	Hooghly river	Grounding. Unavoidable	Ditto	Ditto.
Abreast of the Garden house steps, Garden reach.	Ditto	Collision with a boat. Carelessness of the crew of boat.	Ditto	Ditto.
In latitude 17° 01′ N., longitude 64° 48′ E.	Arabian sea	Damage to engines. Unavoidable	Ditto	Ditto.
On the sands off Hooghly point	Hooghly river	Grounding. Carelessness of the pilot.	Ditto	Partially damaged; value 2,936.
On the East bank in the North Reef channel, Pámban Pass.	Gulf of Manár	Ditto. Carelessness of the tindal	Ditto	Partially damaged; value not reported.
On the shoal to the North of Perim island, in latitude 12° 41′ 0″ N., longitude 43° 23′ 30″ E.	Red sea	Grounding. Carelessness of the master	Ditto	Slightly damaged; to what amount, not stated.
N.W. ½ N., of the flat buoy off Nurpur point	Hooghly river	Loss of anchor and chain. Unavoidable	Ditto	None lost.
On the 3-fathom patch, 5 miles West of Rás Mákawwa, near Mokha, in latitude 12° 57′ N., longitude 43° 03′ E.	Red sea	Grounding. Currents	Ditto	Ditto.
On the Sintiyar reefs, 5 miles to the East of Rás Sintiyar, in latitude 12° 53′ N., longitude 43° 03′ E.	Ditto	Stranding. Carelessness of the master	Ditto	.....

Number.	Name of vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
29	*Amalfi* . . . (See Wrecks No. 9).	1,792	German screw steamer .	1st February .	Melbourne .	Antwerp and London.	Wool; value not stated
30	*Bhawani* . . .	18	British Indian muchwa .	Do. do. .	Kalyán . .	Bombay . .	Grass; value ₹200 .
31	*Bhagwanti* . .	9	Ditto ditto .	Do. do. .	Ditto . .	Ditto . .	Ditto .
32	*Oriental* . . .	938	British screw steamer .	3rd do. .	Rangoon . .	Madras *viâ* Coromandel coast ports.	General; value not given.
33	*Sestos*	140	British paddle steamer .	Do. do. .	Undergoing repairs		afloat
34	*Asia*	1,139	British screw steamer .	Do. do. .	Madras . .	Calcutta *viâ* Coromandel coast ports and Rangoon.	General; value not reported.
35	*Rámprasad* . .	12	British Indian padow .	11th do. .	Diu . .	Sátpáti . .	Fish; value ₹276 .
36	*Assyria* . . .	969	British screw steamer .	12th do. .	Basra . .	Bombay . .	General; value not stated.
37	*Beemah* . . .	170	British schooner . .	Do. do. .	Employed as a cargo hulk at		Bandar 'Abbas . .
38	*Roman Empire* . .	1,542	British ship . . .	13th do. .	Calcutta . .	London . .	General; value not given.
39	*Cairo* . . .	1,469	British screw steamer .	14th do. .	Singapur . .	Rangoon . .	In water ballast . .
40	*Cairo* . . .	1,469	Ditto ditto .	15th do. .	Ditto . .	Ditto . .	Ditto . .
41	*Euryalus* . . .	1,289	British screw corvette .	17th do. .	Calcutta . .	Ditto . .	.....
42	*Dragon* . . .	1,150	British screw sloop .	Do. do. .	Ditto . .	Ditto . .	.....
43	*Falls of Afton* . .	1,899	British ship . .	Do. do. .	Rangoon . .	Liverpool .	2,300 tons rice; value ₹2,30,000.
44	*Arabia* . . . (See Wrecks No. 15).	694	British screw steamer .	Do. do. .	Linjah . .	Bandar 'Abbas .	General; value not stated.
45	*Deanfield* . . .	1,072	British barque . .	Do. do. .	Diamond island (Bassein river)	Rangoon . .	700 tons stone ballast .
46	*Glanperis* . . .	1,074	Ditto ditto . .	18th do. .	Newcastle (Australia).	Tuticorin . .	1,660 coals; value ₹16,600.
47	*Peshwa* . . .	1,399	British screw steamer .	Do. do. .	Calcutta . .	Bombay . .	In water ballast . .
48	*Chilka* . . .	1,450	Ditto ditto .	19th do. .	Maulmain .	Bombay *viâ* Madras coast ports.	Teak timber; value not reported.
49	*Suryaban* . . .	7	British Indian muchwa .	Do. do. .	Bhiwndi . .	Bombay . .	Khair-wood; value ₹148.
50	*Main* . . .	1,691	British ship . . .	20th do. .	Calcutta . .	Fiji . .	673 Native emigrants, but no cargo on board.
51	*Kremlin* . . .	763	British screw steamer .	21st do. .	Maulmain .	Port Said .	1,310 tons rice; value ₹1,31,000.
52	*Sakerkhadi* . .	7	British Indian muchwa .	22nd do. .	Agáshi . .	Bombay . .	Sugarcane and plantains; value ₹325.
53	*Nasree* . . .	200	Ditto dhow .	23rd do. .	Bandar 'Abbas .	Ditto .	Dried fruits and specie; value ₹15,086.
54	*Ancona* . . .	1,874	British screw steamer .	Do. do. .	Calcutta . .	London . .	General; value not stated.
55	*Falls of Afton* . .	1,899	British ship . . .	25th do. .	Rangoon . .	Liverpool .	2,300 tons rice; value ₹2,30,000.
56	*Khoosali* . . .	12	British Indian mahangiri	26th do. .	Bombay . .	Dantivra . .	Rice; value ₹154 .

Waters during the year 1885—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
In the Outer harbour of Aden	South coast of Arabia	Collision with the screw steamer *Nederland-en-Oranje*. Carelessness of the master of *Amalfi*.	None lost	Partially damaged; value not reported.
Southward of the Thána Railway bridge, Bombay harbour.	Bombay coast	Capsized. Carelessness of the tindal	Ditto	Totally lost.
Ditto ditto	Ditto	Ditto ditto	Ditto	Ditto.
In Cocanada roadstead	Coromandel coast	Collision with a brig; name unknown. Carelessness of the crew of boats.	Ditto	None lost.
At No. 3 swinging moorings off the Government Salt golahs, Howrah.	Hooghly river	Collision with the screw steamer *Asia*. Carelessness of the assistant harbour master.	Ditto	.....
Ditto ditto	Ditto	Collision with the steam-tug *Sestos*. Carelessness of the assistant harbour master.	Ditto	None lost.
11 miles Eastward of Diu	Káthiáwár coast	Capsized. Heavy weather	Five lost	Totally lost.
Near Laft, off Ala Mülk, in latitude 26° 57′ N., longitude 55° 48′ E.	Persian Gulf	Collision with the schooner *Beemah*. Carelessness of the pilot.	None lost	None lost.
Ditto ditto	Ditto	Collision with the steam-ship *Assyria*. Carelessness of the pilot.	Ditto	.....
On a lump or spit in the Bellary channel, 400 yards to the N.E. of a small creek above the Haldia mark	Hooghly river	Grounding. Unavoidable	Ditto	None lost
On the Eastern sands, in latitude 16° 25′ 30″ N., longitude 96° 43′ 30″ E., entrance to the Rangoon river, Gulf of Martaban.	Burma coast	Stranding. Carelessness of the master	Ditto	.....
On the Eastern sands (*exact position not given*), entrance to Rangoon river, Gulf of Martaban.	Ditto	Ditto ditto	Ditto	.....
Off Prinsep's ghât	Hooghly river	Collision with the screw sloop *Dragon*. Carelessness of the assistant harbour master.	Ditto	.....
Ditto	Ditto	Collision with the screw corvette *Euryalus*. Carelessness of the assistant harbour master.	Ditto	.....
Off Godwin's wharf in the Rangoon river	Burma coast	Loss of anchor and chain. Defective cable.	Ditto	None lost.
In 25 fathoms of water, in latitude 26° 32′ N., longitude 55° 47′ E.	Persian Gulf	Collision with the boat *Bagarah*. Not exhibiting lights on the part of the crew of the boat.	Ditto	Ditto.
On the China Ba-keer flats, halfway between the Krishna shoal and the China Ba-keer light-houses, Gulf of Martaban.	Burma coast	Grounding. Carelessness of the master	Ditto	.....
On the Rocky ledge 1 mile to the East of Hare island light-house, Tuticorin harbour.	Gulf of Manár	Stranding. ditto	Ditto	Ditto.
Off Camberbatche's point	Hooghly river	Collision with a buoy. Carelessness of the pilot.	Ditto	.....
On the bank below Natmaw point in the Salween or Maulmain river.	Burma coast	Grounding. Eddy-tide	Ditto	None lost.
Near the Kulwa Railway bridge, Thána creek	Bombay coast	Capsized. Tides	Ditto	Slight damage.
At Kalpi anchorage	Hooghly river	Slight casualty. Unavoidable	Ditto	.....
On the Long Stones reefs, entrance to Salween or Maulmain river.	Burma coast	Stranding. Carelessness of the pilot	Ditto	Partially lost; value ₹3,327.
Near a sand bank at the entrance to the Basseen creek.	Bombay coast	Capsized. Heavy weather	Ditto	₹45 worth was lost.
3 miles Eastward of Jashak	Persian Gulf	Sprung a leak. Old and rotten	Ditto	Partially lost; value not reported.
On the Auckland bar in 21 feet of water, 30 yards N. E. of the Upper Western Eden buoy.	Hooghly river	Grounding. Unavoidable	Ditto	None lost.
Off Godwin's wharf, in the Rangoon river	Burma coast	Loss of anchor and chain. Defective cable.	Ditto	Ditto.
Off the village of Vási Gorai, near Utan	Bombay coast	Sprung a leak. Old and rotten	Ditto	Slightly damaged; value ₹50

Number.	Name of vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
57	*Faiz Rahaman*	558	Arabian barque	27th February	Calcutta	Maskat	Rice; value not reported.
58	*Earl of Jersey*	2,052	British barque	28th do.	Rangoon	The Channel	Ditto
59	*Padouk*	15	British steam launch	2nd March	Employed towing cargo boats.		
60	*Arakan*	14	Ditto ditto	Do. do.	Employed towing cargo boats.		
61	*Nubia*	2,319	British screw steamer	3rd do.	Bombay	Liverpool *viâ* Kurrachee.	General; value not stated.
62	*Wolviston*	1,136	Ditto ditto	4th do.	Singapur	Bassein	In water ballast
63	*Máhá Luxmee*	15	British Indian dhoney	6th do.	Kúmta	Honávar	Cotton seeds, cotton, &c., value ₹350.
64	*Alata*	805	Norwegian barque	8th do.	Liverpool	Rangoon	1,153 tons salt; value ₹57,650.
65	*Trafalgar*	1,696	British ship	13th do.	Calcutta	Dundee	Jute and jute cuttings; value not reported.
66	*Koh-i-nur*	1,936	British screw steamer	Do. do.	Newport (Monmouthshire).	Calcutta	Steel rails; value not given.
67	*East Lothian*	1,389	British ship	13th do.	Bassein	The Channel	1,964 tons rice; value ₹1,17,840.
68	*Abana*	2,060	British screw steamer	15th do.	Liverpool	Bombay	General; value not stated.
69	*Ambravati*	28	British Indian suvala	16th do.	Bombay	Bánkot	In ballast
70	*Oimara*	1,354	British ship	18th do.	Chittagong	The Mauritius	Rice; value not known
71	*Sir Henry Lawrence*	1,221	Ditto	Do, do.	Ditto	Ditto	Ditto
72	*Asia*	1,139	British screw steamer	Do. do.	Calcutta	Colombo	Ditto
73	*Medina*	523	Ditto ditto	19th do.	Ditto	Chandbáli	509 general; value not reported.
74	*East Lothian*	1,389	British ship	Do. do.	Bassein	The Channel	1,964 tons rice; value ₹1,17,840.
75	*Sir Henry Lawrence*	1,221	Ditto	Do. do.	Ditto	The Mauritius	Rice; value not stated
76	*Oimara*	1,354	Ditto	Do. do.	Ditto	Ditto	Ditto.
77	*Coconada*	547	British screw steamer	21st do.	Calcutta	Chittagong	General; value not reported.
78	*Mecca*	937	Ditto ditto	22nd do.	Ditto	Bombay	Ditto
79	*Kaisar-i-Hind*	2,401	Ditto ditto	Do. do.	Ditto	London	Ditto
80	*William Paterson*	619	British barque	23rd do.	Rangoon	Cochin	810 tons rice and paddy value ₹54,705.
81	*Favorit*	934	Norwegian ship	Do. do.	Colombo	Rangoon	In ballast
82	*Poorunprasad*	15	British Indian padow	Do. do.	Bombay	Dholera	Molasses; value ₹2,466
83	*Glandinorwig*	1,080	British barque	25th do.	Rangoon	The Channel	Rice; value not known
84	*Nicolo Accame*	1,371	Italian ship	Do. do.	Singapur	Rangoon	In ballast

Waters during the year 1885—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
On the edge of the flat a little above the Haldia beacon.	Hooghly river	Grounding. Unavoidable	None lost	None lost.
Abreast of the Lower Eastern buoy in the Western channel, entrance to Rangoon river, Gulf of Martaban.	Burma coast	Ditto Carelessness of the pilot	Ditto	Ditto.
At the entrance to the Pazundaung creek, in the Rangoon river.	Ditto	Collision with the steam launch *Arakan*. Carelessness of the serang of the *Padouk*.	Ditto	.....
Ditto ditto	Ditto	Collision with the steam launch *Padouk*. Carelessness of the serang of the *Padouk*.	Ditto	.....
On a sand bank in the Kurrachee harbour	Sind coast	Grounding. Heavy weather	Ditto	None lost.
Off Messrs. Mohr Brothers' rice mills, in the Bassein harbour.	Burma coast	Collision with a boat. Carelessness of the man at wheel.	Ditto	Ditto.
On the sands off Herbág village, in the port of Honávar.	Bombay coast	Grounding. Heavy weather	Ditto	₹200 worth was lost.
On the Eastern sands, entrance to Rangoon river, Gulf of Martaban.	Burma coast	Stranding. Carelessness of the master	Ditto	None lost.
Off Prinseps' ghât moorings	Hooghly river	Collision with the steam-ship *Koh-i-nur*. Carelessness of the assistant harbour master.	Ditto	Ditto.
Ditto ditto	Ditto	Collision with the ship *Trafalgar*. Carelessness of the assistant harbour master.	Ditto	Ditto.
On the Eastern side of Hengie island, about 300 yards E.S.E. of Wolff rock, entrance to Bassein river, Gulf of Martaban.	Burma coast	Grounding. Carelessness of the pilot	Ditto	Ditto.
In the Princes' dock channel, Bombay harbour	Bombay coast	Collision with a dredger. Carelessness of the pilot.	Ditto	Ditto.
Off the village of Hareshvar, at the entrance to Bánkot river.	Ditto	Capsized. Heavy weather	Ditto	.....
On the Eastern flats, midway between the middle and the outer bar buoys, entrance to the Kornafuli river.	Chittagong coast	Grounding. Unavoidable	Ditto	None lost.
On the bar, at the entrance to the Kornafuli river.	Ditto	Ditto ditto	Ditto	Ditto.
Off the Garden house steps, Garden reach	Hooghly river	Ditto. Carelessness of the pilot	Ditto	Partially damaged; value ₹5,000.
Near the Dhámrá bar	Orissa coast	Collision with a buoy. Carelessness of the master.	Ditto	None lost.
On the Porian shoal, entrance to Bassein river, Gulf of Martaban.	Burma coast	Grounding. Carelessness of the pilot.	Ditto	Ditto.
In the Gut, off the middle bar buoy, entrance to the Kornafuli river.	Chittagong coa	Ditto. Unavoidable	Ditto	Ditto.
On the Eastern flats, entrance to the Kornafuli river.	Ditto	Ditto Dttto	Ditto	Ditto.
On a lump near the Ring buoy, in the Kornafuli river.	Ditto	Ditto. Carelessness of the master	Ditto	Ditto.
On the Southern bank in the Moyapur new track.	Hooghly river	Ditto. Eddy-tide	Ditto	Ditto.
On the Western bank at Nynan, a little below Damúda point.	Ditto	Ditto. Unavoidable	Ditto	Ditto.
6 miles S. E. by E. ½ E. of the China Ba-keer light-house, entrance to the Rangoon river, Gulf of Martaban.	Burma coast	Collision with the ship *Favorit*. Tides	Ditto	Ditto.
6 miles S. E. by E. ½ E. of the China Ba-keer light-house, entrance to the Rangoon river, Gulf of Martaban.	Ditto	Collision with the barque *William Paterson*. Tides.	Ditto	.....
Off Vadnagar	Gulf of Cambay	Foundering. Carelessness of tindal	Ditto	Partially lost; value R1,736.
Off the Pilots' station, entrance to Rangoon river, Gulf of Martaban.	Burma coast	Collision with the ship *Nicolo Accame*. Carelessness of the master of the barque *Glandinorwig*.	Ditto	None lost.
Ditto ditto	Ditto	Collision with the barque *Glandinorwig*. Carelessness of the master of the barque.	Ditto	.....

Number.	Name of vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
85	*Karamati*	14	British Indian pattimar	26th March	Bánkot	Calicut	Paddy; value ₹726
86	*Busheer*	539	British screw steamer	27th do.	Calcutta	Chittagong	General; value not stated
87	*Karamania*	2,045	Ditto	29th do.	Liverpool	Calcutta	Ditto
88	*Havre*	2,662	French screw steamer	31st do.	Sydney	Pondicherry	In water ballast
89	*Arratoon Apcar*	1,392	British screw steamer	2nd April	Hong-Kong and the Straits.	Calcutta	General; value not reported.
90	*Apollo*	1,157	German barque	3rd do.	Batavia	Diamond island (Bassein river).	In stone ballast
91	*Suez*	1,390	British screw steamer	5th do.	Cardiff	Hong-Kong	Coals; value not known
92	*Borghese*	1,330	Ditto	6th do.	Bassein (Burma)	Malta	2,400 tons rice; value ₹1,44,000.
93	*Glenlui*	1,847	British ship	Do. do.	Liverpool	Calcutta	2,700 tons salt; value ₹1,62,000.
94	*Sambuk Marutmowli*	12	British Indian craft	Do. do.	Karanja	Avere	Karvi and coir yarn; value ₹400.
95	*Professor*	1,696	British screw steamer	7th do.	Cardiff	Calcutta	Coals; value ₹38,240
96	*Saint Asaph*	1,284	Ditto	9th do.	Akyab	Port Said	2,400 tons rice; value ₹1,44,000.
97	*Ulándi*	4	British Indian hodi	12th do.	Vengurla	Seaward	Fishing nets; value ₹65.
98	*Kaderi*	15	Ditto muchwa	14th do.	Bombay	Vengurla	Salt; value ₹586
99	*Rawaluditha*	13	Portuguese Native dhoney	Do. do.	Chapora	Ditto	Salt; value ₹413
100	*Ganeshprasad*	12	British Indian muchwa	15th do.	Bombay	Ditto	Salt; value ₹975
101	*Yeshwanty*	12	Native muchwa	Do. do.	Shrivardhan	Kelshi	In ballast
102	*Glencairn*	1,564	British ship	17th do.	Rangoon	The Channel	2,300 tons rice; value ₹1,38,000.
103	*Newcomen*	1,388	British screw steamer	Do. do.	London	Bombay	General; value not reported.
104	*Bancoora*	2,170	Ditto	Do. do	Suwákin	Calcutta	In water ballast
105	*Ruth Topping*	319	British barkantine	18th do.	Port Natal	Ditto	In sand ballast
106	*Euripides*	1,153	British screw steamer	20th do.	Maulmain	Port Said	Rice; value not known
107	*Ganger Rolf*	1,194	Norwegian screw steamer	Do. do.	Ditto	Malta	Ditto
108	*Roxburgh*	1,407	British screw steamer	Do. do.	Cardiff	Bombay	Coals; value not stated
109	*Snowdrop*	609	British barque	21st do.	San Nicolas (Central America)	Rangoon	300 tons rubbish ballast
110	*Khersonese*	1,711	British ship	23rd do.	Madras	Vizagapatam	In ballast
111	*Forrest Hall*	1,999	Ditto	26th do.	Chittagong	New York	2,719 tons jute in bales; value ₹2,99,090.
112	*Palgrave*	3,112	Ditto	27th do.	Calcutta	London	General; value not stated.
113	*Maidesh*	22	British Indian muchwa	28th do.	Belápur	Thána	Salt; value ₹1,600
114	*Khandalla*	1,318	British screw steamer	30th do.	Calcutta	Rangoon, Maulmain, and the Straits.	General; value not given.
115	*Ramprasad*	22	British Indian padow	2nd May	Govál-koti	Bombay	Cotton; value ₹5,760.

Waters during the year 1885—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
On the bar in the A'chra creek . . .	Bombay coast .	Grounding. Carelessness of the tindal	None lost .	Partially lost; value ₹653.
In the No. 3 track, Moyapur . . .	Hooghly river .	Collision with a boat. Carelessness of the crew of boat.	Ditto .	None lost.
In Saugor roads	Ditto . .	Collision with a buoy. Unavoidable .	Ditto .	Ditto.
In latitude 1° N., longitude 86° E. . .	Indian ocean . .	Damage to engines. Cyclone . .	Ditto .	.....
At Kidderpur	Hooghly river .	Collision with the buoys. Carelessness of the pilot.	Ditto .	None lost.
In 11½ feet of water, off the Western side of the delta of the Kistna river, in latitude 15° 44' N., longitude 80° 50' E.	Coromandel coast .	Stranding. Currents . . .	Ditto .	.....
150 miles to the S. W. of Great Nicobars, in latitude 6° 15' N., longitude 91° 06' E.	Indian ocean .	Damage to engines. Unknown .	Ditto .	None lost.
In latitude 11° 16' N., longitude 64° 39' E. .	Arabian sea . .	Ditto. Not reported .	Ditto .	Ditto.
On the sands about 5 miles East of the False Point light-house.	Orissa coast . .	Stranding. Neglect of lead . .	Ditto .	Partially damaged; value ₹5,000.
Off the Kusola creek in the Bombay harbour.	Bombay coast .	Capsized. Heavy weather . .	Ditto .	Totally lost.
In latitude 11° N., longitude 57° E. . .	Arabian sea . .	Damage to engines. Owing to bad look-out.	Ditto .	Partially damaged; value not reported.
In latitude 12° 52' N., longitude 46° 01' E. .	Gulf of Aden . .	Damage to engines. Unknown .	Ditto .	Ditto.
Off the port of Vengurla	Bombay coast .	Collision with the steamer *Shastri*. Carelessness of the master of the steamer.	Ditto .	Partially lost; value ₹65.
On a rock in the St. Antoni Suza creek, Bombay harbour.	Ditto . .	Grounding. Carelessness of the tindal	Ditto .	Partially lost; value ₹50.
Off the port of Redi	Ditto . .	Foundering. Heavy weather . .	Ditto .	Partially lost; value ₹304.
Near the St. Antoni Suza salt works, Bombay harbour.	Ditto . .	Capsized. Tides	Ditto .	Totally lost.
Off Kelshi bandar	Ditto . .	Ditto. Stress of the weather .	Ditto .	.....
On the Pazundaung bar, in the Rangoon river	Burma coast . .	Stranding. Carelessness of the pilot .	Ditto .	Partially damaged; value not reported.
100 feet from the entrance to the Princes' dock, Bombay harbour.	Bombay coast .	Collision with the Princes' dock pier. Carelessness of the pilot.	Ditto .	Partially damaged; value ₹1,234.
Off the Bishops' College, Garden reach .	Hooghly river .	Collision with a buoy. Unavoidable .	Ditto .	.....
On the bank off Sankral bazar . . .	Ditto . .	Grounding. Unavoidable . . .	Ditto .	.....
At the entrance to the Salween or Maulmain river between the Reef and the Godwin Spit buoys.	Burma coast .	Collision with the steam-ship *Ganger Rolf*. Carelessness of the pilot of the *Euripides*.	Ditto .	None lost.
Ditto ditto . .	Ditto . .	Collision with the steam-ship *Euripides*. Carelessness of the pilot of the *Euripides*.	Ditto .	Ditto.
(*Exact position not given*)	Arabian sea . .	Damage to engines. Not reported .	Ditto .	Ditto
On the Syriam beach, in the Rangoon river .	Burma coast . .	Grounding. Unavoidable . . .	Ditto .	.....
On the sands, 2 miles West of False Point Divi.	Coromandel coast .	Ditto. Carelessness of the first officer.	Ditto .	.....
On the Outer bar spit, about 50 yards from the Outer bar buoys, entrance to the Kornafuli river.	Chittagong coast .	Grounding. Insufficient towing power of the steam launches *Python* and *Alexandros*.	Ditto .	None lost.
In Kalpi roads	Hooghly river .	Loss of anchor and chain. Heavy weather.	Ditto .	Ditto.
On a rock, 1 mile Southward of the Chendi bandar, Thána creek, Bombay harbour.	Bombay coast .	Grounding. Carelessness of the tindal	Ditto .	Totally lost.
Off the Bishops' College, Garden reach .	Hooghly river .	Collision with a buoy. Carelessness of the third officer.	Ditto .	None lost.
Near Songámi in the Váshishti river . .	Bombay coast .	Foundering. Heavy weather . .	Ditto .	Partially lost; value ₹1,380.

Number.	Name of vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
116	*Philomene*	1,423	British ship	2nd May	Calcutta	New York	General; value not known.
117	*Burgundia*	1,848	French screw steamer	Do. do.	Rangoon	Genoa	Rice; value not reported
118	*Khandalla*	1,318	British screw steamer	Do. do	Calcutta	Rangoon, Maulmain, and the Straits.	General; value not given.
119	*Jhansi*	488	British flat	4th do.	Assam	Calcutta	Tea; value not stated.
120	*Vulcan*	124	British schooner	Do. do.	Employed in recovering vessels' lost anchors and chains in the Hooghly river.		
121	*Sir Henry Lawrence*	1,221	British ship	5th do.	The Mauritius	Point de Galle	In ballast
122	*Eden Hall*	2,325	British screw steamer	Do. do.	Liverpool	Bombay	General; value not reported.
123	*Kilwa*	993	Ditto	12th do.	The Straits, Maulmain, and Rangoon.	Calcutta	Ditto
124	*Siva*	734	British paddle steamer	Do. do.	Calcutta	Dibrughar	Ditto
125	*Knight of the Garter*	1,434	British ship	Do. do.	Liverpool	Calcutta	Salt; value not stated.
126	*Beatrice*	747	Italian barque	13th do.	Maulmain	The Channel	Teak timber; value not reported.
127	*Laxumeepersad*	43	British Indian padow	Do. do.	Bánkot	Dholera	Cocoanuts; value ₹2,025
128	*Therooporur Moorugien Puravey.*	Not reported.	Ditto dhoney	14th do.	Quilon	Pondicherry and Madras.	Cotton, timber, and tamarind; value not reported.
129	*Brankelow*	1,661	British screw steamer	15th do.	Bassein (Burma)	Malta	3,117 tons rice; value ₹1,87,020.
130	*Dowlut Pursad*	141	Native bagla	16th do.	Kumta	Bombay	Cotton; value ₹17,850.
131	*Naodi Muchery*	11	British Indian muchwa	Do. do.	Broach	Talája	Cotton-seeds; value ₹354.
132	*Dariadowlat*	11	Ditto padow	Do. do.	Ditto	Ditto	Cotton-seeds; value ₹441.
133	*Chippewa*	1,072	British barque	17th do.	Akyab	Karrikal	1,288 tons rice; value ₹77,280.
134	*Erins Gem*	1,480	British ship	Do. do.	Calcutta	New York	General; value not given
135	*LeChampenois*	435	French barque	18th do.	Réunion	Calcutta	Sugar; value not stated.
136	*Udston*	1,695	British ship	20th do.	London	Ditto	General; value not known.
137	*Reliance*	2,568	Ditto	25th do.	Liverpool	Ditto	Salt; value not reported
138	*Siam*	295	Siamese barque	Do. do.	Calcutta	Bankok	In ballast
139	*Columbus*	97	British paddle steamer	Do. do.	Ditto	Mud Point	Water, provisions, &c.; value not given.
140	*Pankhido*	40	Native kotia	26th do.	Sálaya	Bombay	Cotton and wool; value ₹7,500.
141	*Reliance*	2,568	British ship	Do. do.	Liverpool	Calcutta	Salt; value not known.
142	*Thames*	2,131	British screw steamer	27th do.	Melbourne	London	General; value not known
143	*Indore*	750	British paddle steamer	Do. do.	Calcutta	Assam	Ditto
144	*Sir John Lawrence*	466	Ditto	Do. do.	Ditto	Chándbali	Ditto

Waters during the year 1885—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
In 36 feet of water at Mud Point	Hooghly river	Loss of anchor and chain. Unknown	None lost	None lost.
(Exact position not reported)	Bay of Bengal	Damage to engines. Not reported	Ditto	Partially damaged; value not reported.
On the bank, a little below the Hastings' shoal, in the Rangoon river.	Burma coast	Grounding. Carelessness of the pilot	Ditto	None lost.
Off Kúkrahâti	Hooghly river	Collision with the Anchor Hoy boat *Vulcan*. Stress of weather.	Ditto	Ditto.
Ditto	Ditto	Collision with the flat *Jhansi*. Stress of weather.	Ditto	Ditto.
In the harbour of Point de Galle	Ceylon coast	Loss of anchor and chain. Not reported.	Ditto	.....
(Exact position not reported)	Arabian sea	Damage to engines. Not reported	Ditto	None lost.
Off No. 8 Esplanade moorings	Hooghly river	Collision with the steamer *Siva*. Carelessness of the master of the *Siva*.	Ditto	Ditto.
Ditto	Ditto	Collision with the steam-ship *Kilwa*. Carelessness of the master of the *Siva*.	Ditto	Ditto.
On the sands, about 2¼ miles S.S.E. of the False Point light-house.	Orissa coast	Stranding. Carelessness of the second officer.	Ditto	Partially damaged; value ₹5,000.
Near the Múpún reef buoy, in the Salween or Maulmain river.	Burma coast	Grounding. Bad stowage of cargo	Ditto	Partially lost; value not reported.
On the bar, entrance to Bánkot river	Bombay coast	Ditto. Carelessness of the tindal	Ditto	Partially lost; value ₹865.
On the coral reefs off Pulli shoal in the Pooma channel.	Gulf of Manâr	Ditto. Overladen	Ditto	Partially lost; value ₹100.
On the reefs, ½ a mile N.E. ¾ E. from the North end of Diamond island, entrance to Bassein river, Gulf of Martaban.	Burma coast	Stranding. Carelessness of the pilot	Ditto	Partially damaged; value ₹3,022.
Near Panjin (New Goa).	Portuguese Territory	Sprung a leak. Heavy weather	Ditto	Partially lost; value ₹5,100.
On a sand bank off the Kim river	Bombay coast	Grounding. Heavy weather	Ditto	Totally lost.
On a sand bank near Bhagvá	Gulf of Cambay	Ditto. Ditto	Ditto	Partially lost; value ₹390.
240 miles to the Westward of South Andaman island, in latitude 12° 01′ N., longitude 88° 33′ E.	Bay of Bengal	Sprung a leak. Weakness of construction.	Ditto	Partially damaged; value not reported.
In the Bellary channel, about ½ a mile below the Bellary tower.	Hooghly river	Grounding. Bad steering qualities of ship.	Ditto	None lost.
Off Hooghly point	Ditto	Loss of anchor and chain. Unavoidable	Ditto	Ditto.
On the edge of the flat about 1½ miles below Fisherman's point.	Ditto	Stranding. Unavoidable	Ditto	Partially damaged; value ₹8,310.
In No. 1 track, Eastern Gut, James and Mary's.	Ditto	Stranding. Insufficient towing power of steam-tug *Court Hey*.	Ditto	Partially damaged; value ₹4,000.
At Mud point	Ditto	Collision with the steam-tug *Columbus*. Carelessness of the master of the tug.	Ditto	.....
Ditto	Ditto	Collision with the barque *Siam*. Carelessness of the master of the *Columbus*.	Ditto	None lost.
On the rocks at the entrance to the Verangat creek.	Gulf of Cutch	Stranding. Carelessness of the tindal	Ditto	Partially lost; value ₹5,500.
On the flat below the Nurpur black Nun buoy	Hooghly river	Ditto. Insufficient towing power of steam-tug *Court Hey*.	Ditto	Partially damaged.
In latitude 7° 19′ N., longitude 76° 43′ E.	Indian ocean	Damage to engines. Not reported	Ditto	Partially damaged; value not reported.
Between the India General Steam Navigation and the Peninsular and Oriental Steam Navigation Companys' yards, Garden reach.	Hooghly river	Collision with the steamer *Sir John Lawrence*. Carelessnes of the master of the *Sir John Lawrence*.	Ditto	None lost.
Ditto ditto	Ditto	Collision with the steamer *Indore*. Carelessness of the master of the steamer *Sir John Lawrence*.	Ditto	Ditto.

Number.	Name of vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
145	*Udston*	1,695	British ship	28th May	London	Calcutta	General; value not stated
146	*Willingale*	1,312	British screw steamer	Do. do.	Cocanada	Boston *viâ* Madras.	2,395 tons jaggery and castor-oil seeds; value £15,842.
147	*Rouen*	2,670	French screw steamer	31st do.	Toulon	Saigon	Troops and 90 horses, but no cargo on board.
148	*City of Manchester*	2,046	British screw steamer	Do. do.	Liverpool	Calcutta	4,000 tons general; value not known.
149	*Havre*	2,662	French screw steamer	1st June	Pondicherry	Marseilles	Sesame; value not stated.
150	*Diomed*	1,470	British screw steamer	Do. do.	Liverpool	Hong-Kong	General; value not given.
151	*Martaban*	1,630	Ditto	2nd do.	Glasgow	Rangoon	Ditto
152	*Kaisar-i-Hind*	2,400	Ditto	Do. do.	London	Calcutta	Ditto
153	*Fathool Muneer*	20	Maldivian hodi	Do. do.	Suadiva Atoll	Tuticorin	Grass mats; value not stated.
154	*Liguria*	2,980	British screw steamer	Do. do.	Liverpool	Australia	General; value not given.
155	*Onward*	559	British barque	3rd do.	Jiddah	Calcutta	830 tons salt; value ₹12,000.
156	*Antenor*	1,645	British screw steamer	Do. do.	Liverpool	Hong-Kong	General; value not known.
157	*Newcomen*	1,388	Ditto	Do. do.	Kurrachee	Malta and London.	Ditto
158	*Ruperra*	1,386	Ditto	Do. do.	Cardiff	Aden	Coals; value not stated
159	*Naples*	1,473	Ditto	Do. do.	Ditto	Ditto	Ditto
160	*Eusemere*	2,650	British ship	Do. do.	Calcutta	London	Wheat, jute, linseed, and rape seed; value not reported.
161	*Genista*	1,799	Ditto	Do. do.	Ditto	Ditto	Bone dust, wheat, and rape seed; value not known.
162	*Peshawur*	2,130	British screw steamer	Do. do.	Ditto	Ditto	General; value not reported.
163	*Columbian*	1,404	British Indian screw steamer.	Do. do.	Suwákin and Jiddah.	Bombay	Ditto
164	*Malek*	1,054	British screw steamer	Do. do.	Cardiff	Basra	Ditto
165	*Balcarres Brook*	1,306	Ditto	Do. do.	Ditto	Singapur	Coals; value not known
166	*Inchulva*	1,453	Ditto	Do. do.	Ditto	Bombay	2,714 tons coals; value ₹27,140.
167	*Duke of Devonshire*	2,024	Ditto	Do. do.	London	Calcutta	General; value not reported.
168	*Carlton Tower*	1,480	Ditto	Do. do.	Swansea	Basra	1,200 general; value not stated.
169	*Simoom*	1,350	Ditto	6th do.	Cardiff	Aden	Coals; value not given
170	*Ashburne*	1,613	Ditto	Do. do.	Chittagong	London	Rice; value not stated
171	*Miramatham*	88	Cingalese brig	Do. do.	Colombo	Pámban	Fuller's earth, plumbago, &c.; value not known.
172	*Thanaletchmy*	167	British Indian brig	Do. do.	At anchor in the Port of	Pámban	
173	*Magbool Ahmed*	205	Ditto	7th do.	Bombay	Chittagong	Kerosine oil; value ₹2,200.
174	*Vellore*	1,631	British ship	Do. do.	Liverpool	Calcutta	Salt; value not reported.

Waters during the year 1885—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
Little above the Upper Falta mark	Hooghly river	Loss of anchor and chain. Unavoidable	None lost	None lost.
On the Northern edge of the Armogham shoals in latitude 13° 56′ N., longitude 80° 17′ E.	Coromandel coast	Grounding. Carelessness of the third officer.	Ditto	Ditto.
20 miles North of Sokotra island	Arabian sea	Loss of boats, sails, &c. Cyclone	Ditto	84 horses lost overboard; value ₹42,000.
In latitude 12° 52′ N., longitude 54° 47′ E.	Ditto	Damage to hull. Ditto	Ditto	Partially lost; value ₹10,000.
Off the South side of Sokotra island	Ditto	Damage to engines. Ditto	Ditto	Partially damaged; value not reported.
In latitude 11° 50′ N., longitude 51° 20′ E.	North-East coast of Africa.	Ditto. Ditto	Ditto	Ditto.
In latitude 13° 06′ N., longitude 50° 0′ E.	Gulf of Aden	Damage to hull. Ditto	Ditto	None lost.
120 miles E. by N. of Aden, in latitude 13° 16′ N., longitude 47° 17′ E.	Ditto	Loss of boats, sails, &c. Ditto	Ditto	Ditto.
(Exact position not reported)	Gulf of Manár	Loss of masts, sails, &c. Ditto	Ditto	Ditto.
150 miles E. by N. of Aden	Gulf of Aden	Loss of boats, sails, &c. Ditto	Ditto	Ditto.
In latitude 13° 05′ N., longitude 48° 48′ E.	Ditto	Damage to hull. Ditto	Ditto	Partially damaged; value ₹1,346.
Off Rás Howhr	South coast of Arabia	Ditto. Ditto	One lost	Partially damaged; value not reported.
(Exact position not reported)	Gulf of Aden	Ditto. Ditto	None lost	Ditto.
In the Inner harbour of Aden	South coast of Arabia.	Collision with the steam-ship *Naples*. Cyclone.	Ditto	None lost.
Ditto ditto	Ditto	Collision with the steam-ship *Ruperra*. Cyclone.	Ditto	Ditto.
At Saugor roads	Hooghly river	Slight casualty. Unavoidable	Ditto	Ditto.
On the Shalimar sands in the port of Calcutta	Ditto	Grounding. Carelessness of the assistant harbour master.	Ditto	Ditto.
(Exact position not given)	Gulf of Aden	Loss of boats, sails, &c. Cyclone	Ditto	Ditto.
In latitude 12° 29′ N., longitude 44° 05′ E.	Ditto	Damage to hull. Ditto	Ditto	Partially damaged; value not reported.
4 miles South of Aden	South coast of Arabia	Ditto. Ditto	Ditto	Ditto.
A little to the Eastward of Perim island, in the Straits of Báb-el-Mandeb.	Red sea	Ditto. Ditto	Ditto	Ditto.
70 miles S. E. of Aden	Gulf of Aden	Ditto. Ditto	Ditto	Ditto.
Off Aden harbour	Ditto	Loss of boats, sails, &c. Ditto	Ditto	None lost.
On a coral reef at Dankali, in Obokh South port, Gulf of Tejurah.	North-East coast of Africa.	Stranding. Ditto	Ditto	Partially damaged; value £500, and £120 worth was lost.
Off Perim island, in the Straits of Bá-bel-Mandeb.	Red sea	Damage to engines. Heavy weather	Ditto	None lost.
On the outer ledge of the Mata Mata reefs	Ceylon coast	Grounding. Stress of weather	Ditto	Ditto.
135 yards to the Southward of the Pámban Custom house.	Palks Strait	Collision with the brig *Thanaletchmy*. Carelessness of the tindal of the brig *Miramatham*.	Ditto	Ditto.
125 yards to the Southward of the Pámban Custom house.	Ditto	Collision with the brig *Miramatham*. Carelessness of the tindal of the *Miramatham*.	Ditto	.....
Off Panjim (New Goa)	Portuguese Territory	Loss of masts, sails, &c. Cyclone	Ditto	None lost.
Abreast Diamond harbour	Hooghly river	Loss of anchor and chain. Unavoidable.	Ditto	Ditto.

Number.	Name of vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
175	*Sir Lancelot*	886	British barque	10th June	The Mauritius	Bombay	1,230 tons sugar, value ₹3,39,000.
176	*Carlton Tower*	1,480	British screw steamer	Do. do.	Swansea	Basra	1,200 general; value not stated.
177	*Westergate*	1,179	Ditto	Do. do.	Kurrachee	Malta and London.	General; value not given.
178	*Prinz Georg*	1,906	German screw steamer	Do. do.	The Mauritius	Bombay	Sugar; value not reported.
179	*Rouen*	2,670	French screw steamer	11th do.	Toulon	Saigon	Troops and 6 horses, but no cargo on board.
180	*Rooparel*	12	Native padow	Do. do.	Bhávnagar	Broach	Cotton in bales; value ₹4,089.
181	*Siam*	295	Siamese barque	12th do.	Calcutta	Bankok	In ballast
182	*Knight Commander*	1,435	British ship	Do. do.	Liverpool	Calcutta	Salt; value not known
183	*Thames*	2,130	British screw steamer	Do. do.	Melbourne	London	General; value unknown.
184	*Gulf of Papua*	1,316	Ditto	Do. do.	Liverpool	Bombay	2,258 tons coals; value ₹22,580.
185	*Pemba*	987	Ditto	13th do.	Calcutta	Rangoon; Maulmain, and the Straits.	General; value not stated.
186	*Siam*	295	Siamese barque	Do. do.	Ditto	Bankok	In ballast
187	*Abala*	152	British paddle steamer	15th do.	Employed as a Ferry steamer plying between Calcutta and Ulabaria.		
188	*Petriana*	1,086	British screw steamer	Do. do.	Vizagapatam and Cocanada.	Dunkerque	Jaggery; value not given.
189	*Thames*	2,131	Ditto	Do. do.	Melbourne	Calcutta	General; value unknown.
190	*Knight of the Garter*	1,434	British ship	16th do.	Liverpool	Ditto	Salt; value not reported.
191	*Stronsa*	2,000	Ditto	Do. do.	Calcutta	London	General; value not stated.
192	*Lutibshy*	19	British Indian dingy	18th do.	Kurrachee	Keti bandar	Ditto
193	*Khandalla*	1,318	British screw steamer	Do. do.	Calcutta	Rangoon, Maulmain, and The Straits.	Ditto
194	*Himalaya*	910	Ditto	18th to 22nd	Rangoon	Madras	Ditto
195	*Glenlui*	1,847	British ship	19th do.	Calcutta	Liverpool	Ditto
196	*Esbroufe*	371	French barque	22nd do.	Chittagong	Guadaloupe	554 tons rice; value ₹33,240.
197	*Compta*	998	British ship	23rd do.	Bassein (Burma)	The Channel	1,409 tons rice; value ₹84,540.
198	*Idomene*	1,390	Ditto	25th do.	Calcutta	Bassein (Burma)	In sand ballast
199	*Discoverer*	1,455	British screw steamer	26th do.	Bombay	Liverpool	General; value not known.
200	*Mirzapore*	2,164	Ditto	Do. do.	London	Bombay	Ditto
201	*County of Argyle*	699	British ship	27th do.	Vizagapatam and Cocanada.	Queenstown	Jaggery; value not reported.
202	*Mountstuart*	1,220	Ditto	28th do.	Liverpool	Calcutta	Salt; value not stated.
203	*Marlborough*	1,164	British screw steamer	29th do.	Basra	London	General; value not given

Waters during the year 1885—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
250 miles S. W. of Bombay harbour	Arabian sea	Damage to hull. Cyclone	None lost	Partially lost; value ₹3,427.
In Perim harbour	Red sea	Collision with the steam-ship *Westergate*. Carelessness of the master of the *Westergate*.	Ditto	None lost.
Ditto	Ditto	Collision with the steam-ship *Carlton Tower*. Carelessness of the master of the *Westergate*.	Ditto	Ditto.
North side of the Princes' Dock, Bombay harbour.	Bombay coast	Collision with the Princes' dock pier. Unavoidable.	Ditto	Ditto.
(Exact position not reported)	Indian ocean	Damage to engines. Not reported	Ditto	.....
16 miles West of Broach, in the Narbada river.	Gulf of Cambay	Strauding. Tides and currents	Ditto	Partially lost; value ₹1,900.
In 7 fathoms of water, 7 miles S. W. by W.½ W. of the Intermediate light-ship.	Sandheads	Loss of anchor and chain. Defective cable.	Ditto	.....
Abreast the India General Steam Navigation Company's dock, Garden reach.	Hooghly river	Loss of anchor and chain. Carelessness of the crew.	Ditto	None lost.
In latitude 8° 25′ N., longitude 61° 50′ E.	Arabian sea	Damage to engines. Cyclone	Ditto	Partially damaged; value not reported.
In latitude 17° 54′ N., longitude 65° 13′ E.	Ditto	Loss of boats, &c. Ditto	Ditto	None lost.
On the Southern extremity of the Baragua flats, in latitude 15° 33′ N., longitude 95° 02′ E., Gulf of Martaban	Burma coast	Grounding. Carelessness of the third officer.	Ditto	Ditto.
In 6 fathoms of water, 3 miles W. by N.-½ N. of the Intermediate light-ship.	Sandheads	Loss of anchor and chain. Tides and currents.	Ditto	.....
Abreast of Baboo ghât	Hooghly river	Collision with a buoy. Carelessness of the serang.	Ditto	.....
(Exact position not reported)	Arabian sea	Fire. Short of coals	Ditto	Partially lost; value ₹2,136.
Ditto ditto	Ditto	Damage to engines. Not reported	Ditto	Partially damaged; value not reported.
On the bank off the Hooghly dry dock, Howrah.	Hooghly river	Grounding. Stress of weather	Ditto	None lost.
On the bank a little to the Westward of the Upper Western Haldia buoy.	Ditto	Ditto. Eddy-tide	Ditto	Ditto
Between the Duba and the Seesha river mouths of the Indus.	Sind coast	Capsized. Stress of weather	Ditto	₹200 worth was damaged.
On the sands, a little to the Northward of No. 1 track, Eastern Gut, James and Mary's.	Hooghly river	Grounding. Carelessness of the pilot.	Ditto	None lost.
Between latitudes 15° 29′ N. and 17° 19′ N., and longitudes 94° 17′ E. and 90° 32′ E..	Bay of Bengal	Loss of boats, sails, &c. Cyclone	Three lost	Ditto.
On the mud flat at the upper part of Falta reach.	Hooghly river	Grounding. Carelessness of the pilot.	None lost	Ditto.
To the Southward of the South Patch reefs, Kutubdia banks.	Chittagong coast	Loss of sails, yards, &c. Cyclone	Ditto	Partially damaged; value not reported.
In 6¾ fathoms of water, the N. E. point of Hengie Island bearing N. by E. ½ E., entrance to the Bassein river, Gulf of Martaban.	Burma coast	Loss of anchor and chain. Stress of weather.	Ditto	None lost.
(Exact position not reported)	Bay of Bengal	Loss of sails, yards, &c. Heavy weather	Ditto	.....
In the Princes' dock, Bombay harbour	Bombay coast	Collision with the steam-ship *Mirzapore*. Carelessness of the officers of the *Discoverer*.	Ditto	None lost.
Ditt ditto	Ditto	Collision with the steam-ship *Discoverer*. Carelessness of the officers of the *Discoverer*.	Ditto	Ditto.
In latitude 3° 29′ N., longitude 88° 33′ E.	Indian ocean	Sprung a leak. Heavy weather.	Ditto	Partially lost; value ₹1,000.
In Saugor roads, in 8½ fathoms of water	Hooghly river	Loss of anchor and chain. Not known	Ditto	None lost.
2 miles N. W. by N. of the Outer bar buoy, entrance to the Basra river.	Persian Gulf	Stranding. Eddy-tide	Ditto	Partially damaged; value ₹650.

Number.	Name of vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
204	*Falabah*	1,066	French screw steamer	3rd to 9th July	Marseilles	Pondicherry	Coals; value not reported.
205	*Soudan*	1,750	British ship	5th July	Middlesborough	Calcutta	Iron, coals, &c.; not known.
206	*Africa*	1,318	British screw steamer	6th do.	Calcutta	Rangoon, Maulmain, and the Straits.	General; value not stated
207	*Red Sea*	2,165	Ditto	7th do.	Bombay	London	Ditto
208	*Calder*	400	Ditto	Do. do.	Ditto	Basra *viâ* coast ports.	Ditto
209	*Connaught Ranger*	1,153	British ship	10th do.	Otago (New Zealand).	Calcutta	In ballast
210	*Westbourne*	1,227	British screw steamer	Do. do.	London	Bombay	General; value not given
211	*Warrior*	484	British barque	Do. do.	False Point	Cochin	Rice; value not known.
212	*River Ettrick*	934	British screw steamer	12th do.	Bombay	Dunkerque	2,000 tons general; value not stated.
213	*Emmanuel*	92	Cingalese schooner	Do. do.	Colombo	Tuticorin	Gunnies and betelnuts; value not reported.
214	*Fiery Cross*	694	British barque	13th do.	Maulmain	Pámban	930 tons rice and paddy, value ₹55,800.
215	*Fiery Cross*	694	Ditto	14th do.	Ditto	Ditto	Ditto
216	*Riversdale*	1,453	British ship	15th do.	Calcutta	The Mauritius	Rice; value not given
217	*Bormida*	1,499	Italian screw steamer	Do. do.	Ditto	Genoa	General; value unknown
218	*Viscount*	1,270	British ship	Do. do.	Philadelphia	Calcutta	Kerosine oil; value not stated.
219	*Virgin Maria Joseph St. Anna.*	82	British Indian schooner	Do. do.	At anchor		None
220	*Saint Asaph*	1,284	British screw steamer	16th do.	Glasgow	Penang	2,200 tons general; value not reported.
221	*Connaught Ranger*	1,153	British ship	17th do.	Otago (New Zealand).	Calcutta	In ballast
222	*Chetah*	769	British Indian ship	25th do.	Calcutta	The Mauritius	1,120 tons rice, dhal, and gram; value ₹1,00,000
223	*Hay Green*	1,208	British screw steamer	29th do.	Kurrachee	Stettin	2,200 tons seeds; value not known.
224	*Intimes*	462	French barque	31st do.	Pondichery	Calcutta	In stone ballast
225	*Medina*	524	British screw steamer	Do. do.	Chándbali	Ditto	General; value unknown.
226	*Manora*	3,040	Ditto	7th August	Calcutta	London	Ditto
227	*Earl of Beaconsfield*	2,488	British four-masted ship	8th do.	Ditto	Avonmouth	3,164 tons wheat; value ₹2,20,000.
228	*Clive*	572	British twin screw steamer	9th do.	Employed	towing the ship	*Earl of Beaconsfield*
229	*Earl of Beaconsfield*	2,488	British four-masted ship	Do. do.	Calcutta	Avonmouth	3,164 tons wheat; value ₹2,20,000.
230	*Baron Colonsay*	1,632	British ship	10th do.	London	Calcutta	General; value not reported.
231	*Navarino*	2,189	British screw steamer	Do. do.	Ditto	Ditto	Ditto
232	*Yorkshire*	1,425	Ditto	Do. do.	Singapur	New York	3,000 tons tea; value ₹3,60,000.
233	*Himalaya*	910	Ditto	11th do.	Rangoon	Madras	700 tons general; value not stated.

Waters during the year 1885—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Names of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
Off the East point of Sokotra island	Arabian sea	Damage to engines. Heavy weather	None lost	Partially lost; value £500.
In No. 2 track Eastern Gut, James and Mary's	Hooghly river	Grounding. Scant tides	Ditto	None lost.
Off the Sandheads *(exact position not given)*	Sandheads	Damage to engines. Not reported	Ditto	Ditto.
250 miles to the Westward of Bombay	Arabian sea	Ditto. Ditto	Ditto	Ditto.
In Bombay harbour, the Outer light-ship bearing E. ½ S. and the Kolaba light-house N.E. by N.	Bombay coast	Sprung a leak. Carelessness of the engineer.	Ditto	Ditto.
On the bank off Luff point	Hooghly river	Grounding. Unavoidable	Ditto	.....
Princes' dock, Bombay harbour	Bombay coast	Collision with the Princes' dock pier. Carelessness of the chief engineer.	Ditto	None lost.
On a sunken reef about 10 miles to the N.W. of Pakchan river, in latitude 10° 03′ N., longitude 98° 27′ E.	Malay Peninsula	Grounding. Neglect of lead	Ditto	Ditto.
To the S. E. of the Kuriyán Muriyán islands, in latitude 16° 13′ N., longitude 56° 10′ E.	East coast of Arabia	Damage to engines. Carelessness of the builders of the engines.	Ditto	Partially lost; value R2,127.
On the old Oyster Nursery bank, Inner harbour of Tuticorin.	Gulf of Manár	Grounding. Stress of weather	Ditto	None lost.
Off Elwale-thoray, in 7 fathoms of water	Palk Strait	Loss of anchor and chain. Heavy weather.	Ditto	Ditto.
On the edge of the 3-fathom patch, near the anchorage, the Tripod and Pámban pass ball in line.	Ditto	Grounding. Tides	Ditto	Ditto.
60 miles to the S.W. of Car Nicobar island in latitude 8° 49′ N., longitude 91° 30′ E.	Bay of Bengal	Loss of masts, sails, &c. Heavy weather.	Ditto	Ditto.
At Matia-brúj moorings	Hooghly river	Collision with the ship *Viscount*. Carelessness of the pilot of the steam ship *Bormida*.	Ditto	Ditto.
Ditto	Ditto	Collision with the steam ship *Bormida*. Carelessness of the pilot of the *Bormida*.	Ditto	Ditto.
In the Inner harbour of Tuticorin	Gulf of Manár	Capsized. Stress of weather	Ditto	.....
10 miles to the Eastward of Sokotra island	Arabian sea	Sprung a leak. Heavy weather	Ditto	Not reported.
At No. 2 Esplanade moorings	Hooghly river	Collision with a buoy. Carelessness of the assistant harbour master.	Ditto	.....
In latitude 19° 30′ N., longitude 88° 35′ E.	Bay of Bengal	Sprung a leak. Cyclone	Ditto	Partially lost; value R7,937.
In Aden harbour	South coast of Arabia	Damage to engines. Unknown	Ditto	Partially damaged; value not reported.
A little below the Lower Mud point buoy	Hooghly river	Grounding. Unavoidable	Ditto	.....
In Saugor roads	Ditto	Collision with a buoy. Carelessness of the pilot.	Ditto	None lost.
On the bank below Akra	Ditto	Grounding. Unavoidable	Ditto	Ditto.
On the bank just below the Nun buoy at Panchpara.	Ditto	Ditto. Carelessness of the pilot	Ditto	Partially damaged; value not reported.
Off the Botanical gardens, Garden reach	Ditto	Collision with the ship *Earl of Beaconsfield*. Tides.	Ditto	.....
Ditto ditto	Ditto	Collision with the tug *Clive*. Tides	Ditto	None lost.
Off No. 8 Calcutta moorings	Ditto	Collision with the steam-ship *Navarino*. Tides.	Ditto	Ditto.
Ditto ditto	Ditto	Collision with the ship *Baron Colonsay*. Tides.	Ditto	Ditto.
Off Aden, in latitude 12° 40′ N., longitude 45° 06′ E.	South coast of Arabia	Damage to engines. Not reported	Ditto	Ditto.
Off the town, in the Rangoon river	Burma coast	Collision with the Latter street wharf. Carelessness of the assistant harbour master.	Ditto	Ditto.

Number.	Name of vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
234	*City of Cambridge*	3,783	British screw steamer	11th August	Glasgow	Calcut ta	4,485 general; value no reported.
235	*Challenge*	257	British paddle steamer	Do. do.	Employed	towing the ship	*Bolan.*
236	*Orchomene*	1,542	British ship	Do. do.	New York	Calcutta	Kerosine oil; value unknown.
237	*Attilio*	1,018	Italian barque	Do. do.	Akyab	The channel	1,387 tons rice; value ₹83,220.
238	*Royal Alfred*	1,188	British barque	Do. do.	New York	Calcutta	Kerosine oil; value not given
239	*Earl of Beaconsfield*	2,488	British four-masted ship	Do. do.	Calcutta	Avonmouth	3,164 tons wheat; value ₹2,20,000.
240	*Graville*	1,564	French screw steamer	13th do.	Pondicherry	Marseilles	Groundnuts and seeds; value not stated.
241	*Irene Morris*	929	British screw steamer	Do. do.	Liverpool	Calcutta	Salt; value not reported
242	*Yeshwanti*	14	British Indian hodi	14th do.	Utan	Kelva Máhim	Vegetables; value ₹35
243	*Indus*	1,616	British screw steamer	15th do.	Calcutta	Melbourne	General; value not given
244	*Ville de Saint Nazaire*	928	French screw steamer	Do. do.	Pondicherry	Nantes	Seeds and jaggery; value not known.
245	*Algitha*	1,219	British screw steamer	16th do.	Cardiff	Madras	Railway materials; unknown.
246	*Felix Estivant*	920	French barque	17th do.	Calcutta	Réunion	Rice and hog's lard; value not reported.
247	*Yorouba*	2,000	French screw steamer	Do. do.	Cocanada	Marseilles	1,890 tons grain and rice; value not stated.
248	*Navarino*	2,189	British screw steamer	21st do.	Calcutta	London	General; value not given
249	*Nepthis*	1,297	Ditto	Do. do.	Basra	Malta	1,600 tons grain; value not known.
250	*Southwold*	1,204	Ditto	23rd do.	Ditto	Gibraltar	Barley; value not stated.
251	*Felix Estivant*	920	French barque	Do. do.	Calcutta	Réunion	Rice and hog's lard; value unknown.
252	*Thomasina Mac Lellan*	1,788	British ship	26th do.	Bassein (Burma)	The Channel	1,100 tons rice; value ₹66,048.
253	*Futtay Shah Allum*	40	British Indian pattimar	Do. do.	Employed carrying rice from a steamer to the shore		
254	*Nederland-en-Oranje*	1,523	British Indian screw steamer.	27th do.	Bombay	Jiddah	General; value not reported.
255	*Alexandra* (See Wrecks No. 54.)	363	British paddle steamer	29th do.	Lying at anchor No. 6 swinging buoy, abreast		
256	*Hunsdon* (See Wrecks No. 54.)	274	Ditto	Do. do.		At anchor.	. . . .
257	*Chilka*	1,450	British screw steamer	29th do.	Rangoon	The Straits	General; value not stated.
258	*Bengal* (See Wrecks No. 54.)	640	British paddle steamer	30th do.	Assam	Calcutta	10,000 maunds tea, tea-seeds, and jute; value not given.
259	*Saint Mildred*	1,363	British ship	31st do.	Calcutta	London	General; value not known.
260	*Alexandra*	363	British paddle steamer	Do. do.	Towing the ship *Royal*		*Alexandra*
261	*Mountstuart*	1,220	British ship	3rd September	Calcutta	Melbourne	Gunny bags; value not reported.
262	*Rebecca*	1,021	British screw steamer	4th do.	Ditto	Trapani and Genoa.	General; value unknown
263	*Parwar*	200	British flat	Do. do.	Ditto	Narainganj	Ditto
264	*Evesham Abbey*	1,613	British ship	5th do.	Liverpool	Calcutta	Salt; value not reported.
265	*Counsellor*	1,456	British screw steamer	6th do.	Calcutta	Liverpool	General; value not given.

Waters during the year 1885—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saed.
To the Southward of No. 3 track, Eastern Gut, James and Mary's.	Hooghly river	Collision with the tug *Challenge*. Carelessness of the pilot of the steam-ship *City of Cambridge*.	None lost	None lost.
Ditto ditto	Ditto	Collision with the steam-ship *City of Cambridge*. Carelessness of the pilot of the *City of Cambridge*.	Ditto	.....
At No. 6 Matia-brúj ghât moorings	Ditto	Damage to hull. Tides and currents	Ditto	None lost.
Abreast of Mr. Woodward's house in the port of Akyab, Arakan river.	Burma coast	Stranding. Carelessness of the pilot	Ditto	Partially lost; value £1,500.
At No. 4 Matia-brúj ghât moorings	Hooghly river	Collision with the ship *Earl of Beaconsfield*. Tides.	Ditto	None lost.
Ditto ditto	Ditto	Collision with the barque *Royal Alfred*. Tides.	Ditto	Not reported.
On a coral reef, 6 miles S. by E. ½ E. from Komari point.	Ceylon coast	Stranding. Incorrect charts	Ditto	Partially lost; value ₹6,000.
On the sands off Melancholy point	Hooghly river	Grounding. Eddy-tide	Ditto	None lost.
4 miles off Vesáva harbour	Bombay coast	Capsized. Heavy weather	Ditto	Totally lost.
On the sands off Melancholy point	Hooghly river	Grounding. Unavoidable	Ditto	None lost.
(*Exact position not given*)	Arabian sea	Fire. Short of coals	Ditto	Partially lost; value not reported.
In latitude 6° 21′ N., longitude 77° 26′ E.	Indian ocean	Damage to engines. Not known	Ditto	None lost.
At No. 2 Kidderpur moorings, Garden reach	Hooghly river	Loss of anchor and chain. Tides and currents.	Ditto	Ditto.
In latitude 7° 46′ N., longitude 64° 48′ E.	Indian ocean	Damage to engines. Not reported	Ditto	Ditto.
Off Melancholy point	Hooghly river	Collision with a buoy. Unavoidable	Ditto	Ditto.
On the bar, entrance to Basra river	Persian Gulf	Grounding. Carelessness of the pilot	Ditto	Ditto.
Ditto ditto	Ditto	Ditto ditto	Ditto	Ditto.
At No. 1 Matia-brúj ghât moorings	Hooghly river	Loss of anchor and chain. Unavoidable.	Ditto	Ditto.
Off Messrs. Strang, Steel & Co.'s wharf, Bassein river.	Burma coast	Sprung a leak. Carelessness of the master.	Ditto	Partially lost; value ₹6,000.
In Múdy bandar, Bombay harbour	Bombay coast	Grounding. Carelessness of the tindal	Ditto	₹1,750 worth was lost.
In latitude 16° 0′ N., longitude 61° 08′ E.	Arabian sea	Sprung a leak. Heavy weather	One lost	Partially lost; value ₹3,000.
The Esplanade moorings	Hooghly river	Collision with the steam-tug *Court Hey*. Tides.	None lost	.....
At No. 1 swinging buoy, abreast the Prinseps' ghât moorings.	Ditto	Ditto ditto	Ditto	.....
On the edge of the Bheelúgyún sands, Salween or Maulmain river.	Burma coast	Grounding. Carelessness of the pilot	Ditto	None lost.
Off the Bombay Burma Trading Company's premises, Shibpur.	Hooghly river	Collision with the steam-tug *Court Hey*. Tides.	Ditto	Ditto.
On the bank at Kaffray reach, about a quarter of a mile below the Dingywallah's flat buoy.	Ditto	Grounding. Unavoidable	Ditto	Ditto.
Midway between Hog river and Fisherman's point.	Ditto	Loss of anchor and chain. Unavoidable.	Ditto	.....
Abreast the India General Steam Navigation Company's yard, Garden reach.	Ditto	Loss of anchor and chain. Unavoidable.	Ditto	None lost.
At garden reach	Hooghly river	Collision with the flat *Parwar*. Carelessness of the pilot.	Ditto	Ditto.
Ditto	Ditto	Collision with the steam-ship *Rebecca*. Carelessness of the pilot.	Ditto	Ditto.
At Diamond harbour	Ditto	Loss of anchor and chain. Defective chain cable.	Ditto	Ditto.
On the bank below Akra	Ditto	Grounding. Unavoidable	Ditto	Ditto.

Number.	Name of vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
266	*Prinz Alexander*	1,911	German screw steamer	6th September	North Shields	Calcutta	3,200 tons railway materials; value not known.
267	*Ajax*	118	British paddle steamer	7th do.	Rangoon	Maulmain	General; value not given.
268	*Craigburn*	1,997	British ship	9th do.	Liverpool	Calcutta	Salt; value not stated.
269	*Glenroy*	1,411	British screw steamer	11th do.	London	Shanghai *viâ* Pulo Penang.	General; value unknown
270	*Austin Friars*	839	Ditto	12th do.	Basra	London	1,500 tons wheat and dates; value not known
271	*Chipchase Castle*	1,423	Ditto	13th do.	Hamburg	Hong-Kong *viâ* The Straits.	General; value not reported.
272	*Sierra Cordova.*	1,429	British ship	14th do.	The Mauritius	Rangoon	In stone ballast
273	*Falls of Clyde*	1,741	Ditto	Do. do.	Calcutta	Ditto	Grain and jute; value not stated.
274	*Melanope*	1,608	British ship	Do. do.	Ditto	Falmouth	Wheat; value not reported.
275	*Rebecca*	1,021	British screw steamer	Do. do.	Ditto	Naples	General; value not given.
276	*Maharani*	1,617	Ditto	16th do.	Port Blair	Calcutta	General; value unknown
277	*Bokhara*	1,700	Ditto	17th do.	Calcutta	London	Ditto
278	*Purulia*	993	Ditto	18th do.	Rangoon	Maulmain	Ditto
279	*Nederland-en-Oranje*	1,513	British Indian screw steamer.	19th do.	Bombay	Jiddah	Ditto
280	*Rialto*	1,462	British ship	20th do.	New York	Calcutta	Kerosine oil; value not given.
281	*Stree Ramulu*	237	British Indian brig	Do. do.	Cocanada	Maulmain	Seeds and tobacco; value ₹9,000.
282	*Franz*	356	German schooner	21st do.	Calcutta	Port Natal	Rice; value not stated.
283	*Britannia*	2,160	British ship	22nd do.	Melbourne	Calcutta	In stone ballast
284	*Colonel Fytche*	407	British Burman barque	Do. do.	Maulmain	False Point	In ballast
285	*Sri Prasama Malleswaraswami.*	58	British Indian dhoney	Do. do.	Báruvá	Balasore	Gram, turmeric and cocoanuts; value ₹20,000.
286	*Cassandra*	299	British brig	Do. do.	Employed on	Pilot duties at the	Sandheads
287	*Coleroon*	346	Ditto	Do. do.	Ditto	ditto	ditto.
288	*Alexandra*	270	British paddle steamer	Do. do.	Towing ship	*Viscount.*	.....
289	*Booldana*	2,133	British screw steamer	Do. do.	Calcutta	Bombay *viâ* Indian coast ports.	General; value not known.
290	*Calcutta*	984	British barque	23rd do.	Buenos Ayres	Calcutta	In ballast
291	*Loire Inférieure*	533	French screw steamer	Do. do.	Calcutta	Haipong	In water ballast
292	*Shahjehan*	1,036	Ditto	24th do.	Ditto	Madras	General; value not known.
293	*Arcot*	1,150	Ditto	Do. do.	Bombay	Calcutta	Ditto
294	*Madura*	1,266	Ditto	Do. do.	Calcutta	Rangoon, Maulmain, and The Straits.	Ditto
295	*Governor Wilmot*	1,611	American ship	25th do.	Singapur	Calcutta	In sand ballast
296	*Chubwa*	200	British flat.	Do. do.	Calcutta	Narainganj	General; value not reported.

Waters during the year 1885—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
Off the Farisan islands, in latitude 17° 12′ N., longitude 40° 23′ E.	Red sea	Damage to engines. Not reported	None lost	Not reported.
On the Spit sands off Elephant point, entrance to Rangoon river, Gulf of Martaban.	Burma coast	Grounding. Carelessness of the master	Ditto	None lost.
At Diamond harbour	Hooghly river	Loss of anchor and chain. Unavoidable	Ditto	Ditto.
20 miles West of Minikoi island	Indian ocean	Fire. Not reported	Ditto	Not reported.
In the Shât-ul-Arab, Basra river	Persian Gulf	Grounding. Unavoidable	Ditto	None lost.
On the sands off Sheik Burkhood, North side of Perim island, Straits of Báb-el-Mandeb.	Red sea	Ditto. Carelessness of the master	Ditto	Ditto.
Off the Municipal bazar, Rangoon river	Burma coast	Loss of anchor and chain. Carelessness of the assistant harbour master.	Ditto	.....
Below Matia-brúj ghât, Garden reach	Hooghly river	Collision with a buoy. Unavoidable	Ditto	None lost.
On the bank, a little below the Anchoring creek, in No. 2 track Nynan.	Ditto	Grounding. Carelessness of the pilot	Ditto	Ditto.
On the bank at Devil's point	Ditto	Ditto. Eddy-tide	Ditto	Ditto.
On the northern bank of Kúkrahâti reach	Ditto	Ditto. Unavoidable	Ditto	Ditto.
On the bank at Sankral reach	Ditto	Ditto. Ditto	Ditto	Ditto.
On the Southern spit of the sand off Kyauktan shoal, Salween or Maulmain river.	Burma coast	Ditto. Carelessness of the pilot	Ditto	Ditto.
In latitude 13° 57′ N., longitude 51° 22′ E.	Arabian sea	Damage to engines. Not reported	Ditto	Ditto.
4 miles W. ½ S. of the Eastern Channel light-ship.	Sandheads	Loss of anchor and chain. Heavy weather.	Ditto	Ditto.
In latitude 14° 01′ N., longitude 90° 42′ E.	Andamans	Loss of masts, &c. Cyclone	Ditto	Partially lost; value ₹1,000.
6 miles S.W. of the Eastern Channel light-ship.	Sandheads	Loss of anchor and chain. Tides and currents.	Ditto	None lost.
60 miles E. S.E. of False point light-house, in latitude 19° 55′ N., longitude 87° 25′ E.	Orissa coast	Loss of masts, sails, &c. Cyclone	Ditto	.....
In the Agitator creek, False Point harbour	Ditto	Stranding. Cyclone	Ditto	.....
On the beach at Reddie point, False Point harbour.	Ditto	Ditto. Ditto	One lost	Partially lost; value ₹300.
6 miles S. W. by S. of the Eastern Channel light-ship.	Sandheads	Loss of anchor and chain. Heavy weather.	None lost	.....
4 miles to the S. W. of the Eastern Channel light-ship.	Ditto	Ditto ditto	Ditto	.....
In the Eastern Channel	Ditto	Damage to hull. Cyclone	Ditto	.....
A quarter of a mile N. W. of Hookeytola on Dowdeswell island, the light-house bearing S. 26° W., and the Refuge house on Reddie Point S. 30° E., False Point harbour.	Orissa coast	Stranding. Ditto	Two lost	Partially lost; value ₹1,200.
On the tail of the Long Sand, entrance to the Hooghly river.	Sandheads	Ditto. Heavy weather	None lost	.....
On the bank at Pir Serang	Hooghly river	Grounding. Eddy-tide	Ditto	.....
At No. 1, Calcutta moorings	Ditto	Collision with the steam-ships *Arcot* and *Madura*. Carelessness of the crew of the hawser boat.	Ditto	None lost.
Ditto ditto	Ditto	Collision with the steam-ship *Shahjehan*. Carelessness of the crew of the hawser boat.	Ditto	Ditto.
Ditto ditto	Ditto	Ditto ditto	Ditto	Ditto.
Opposite the India General Steam Navigation Company's moorings.	Ditto	Collision with the flat *Chubwa*. Carelessness of the master of the flat.	Ditto	.....
Ditto ditto	Ditto	Collision with the ship *Governor Wilmot*. Carelessness of the master of the flat *Chubwa*.	Ditto	None lost.

Number.	Name of vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
297	*Coleroon*	346	British brig	25th September	Employed on	Pilot duties at the	Sandheads
298	*Shillong*	473	British paddle steamer	29th do.	Assam	Calcutta	Tea and jute; value not known.
299	*Abissinia*	1,852	Italian screw steamer	1st October	Calcutta	Genoa	General; value not given.
300	*Royal Edward*	1,508	British ship	4th do.	Ditto	Sharpness	Linseed; value not reported.
301	*Blair Drummond*	1,450	Ditto	6th do.	Ditto	London	Grain and seeds; value not stated.
302	*Bhowanee*	6	British Indian muchwa	Do. do.	Panvel	Bombay	Grass; value ₹170
303	*Clan Macintosh*	2,636	British screw steamer	7th do.	Calcutta	London	General; value not known.
304	*Jellinghee*	413	British flat	Do. do.	Ditto	Narainganj	Ditto
305	*Governor*	1,717	British screw steamer	8th do.	Ditto	London	Ditto
306	*Airlie*	1,500	British ship	Do. do.	Ditto	Dundee	Ditto
307	*Glance*	881	British barque	10th do.	Ditto	London	Jute and seeds; value not given.
308	*Mahratta* (See Wrecks No. 71).	505	British screw steamer	11th do.	Ditto	Chittagong	General; value not reported.
309	*Allumghier*	901	British Indian ship	12th do.	Linjah	Calcutta	Salt; value not known.
310	*Yanwath*	461	British barque	Do. do.	Point de Galle	Monmouthshire	Rice; value unknown.
311	*Garston*	1,812	British ship	14th do.	Calcutta	Falmouth	General; value not stated.
312	*Vaering*	302	Norwegian schooner	15th do.	Ditto	Port Natal	Rice, gunnies, &c.; value not reported.
313	*Knut Alfsson*	292	Norwegian three-masted schooner.	23rd do.	Ditto	Algoa Bay	Ditto
314	*Laxmiprasad*	19	British Indian mahangiri	Do. do.	Kalyán	Bombay	Bricks; value ₹180
315	*Middlesex*	1,742	British ship	26th do.	Chittagong	Dundee	Jute; value not given
316	*Mary*	195	British paddle steamer	Do. do.	Ready to tow the	ship *Middlesex*	down the river
317	*Carlton*	1,322	British screw steamer	27th do.	Rangoon	Bombay	Rice; value not known.
318	*Herold*	927	British Indian barque	29th do.	Cochin	Chittagong	In ballast
319	*Ribston*	397	British barque	1st November	Hamlin Bay (Western Australia).	Bombay	Railway sleepers; value not given.
320	*Abyssinia*	713	British screw steamer	7th do.	Zanzibar *viâ* Aden.	Ditto	General; value not stated.
321	*Bheema* (See Wrecks No. 78).	198	Ditto	Do. do.	Bombay	Korlai	Ditto
322	*Chupra*	1,432	Ditto	10th do.	Rangoon	Calcutta	Ditto
323	*Stephen D. Horton*	1,626	American ship	Do. do.	Calcutta	New York	General; value ₹3,88,241
324	*Mirzapore*	2,164	British screw steamer	11th do.	London	Bombay	General; value not stated.
325	*Pospeer*	10	British Indian padow	Do. do.	Karanja	Ditto	Sand; value unknown.
326	*Parraca*	464	British barque	12th do.	Chittagong	The Mauritius	Rice; value not given.
327	*Soobramania Puravey*	82	British Indian schooner	Do. do.	Colombo	Tuticorin	General; value ₹7,000.

Waters during the year 1885—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved
Eastern Channel light-ship bearing E.¼ N., distant about 3 miles.	Sandheads . .	Loss of anchor and chain. Currents .	None lost .	.....
Hooghly bridge	Hooghly river .	Collision with the pontoon of the Hooghly bridge. Carelessness of the master	Ditto . .	None lost.
Off Sokotra island, in latitude 73° 03′ N., longitude 52° 23′ E.	Arabian sea . .	Fire. Spontaneous combustion . .	Ditto . .	Not reported.
At Garden reach	Hooghly river .	Loss of anchor and chain. Not reported	Ditto . .	None lost.
Midway between Melancholy point and the Crossing mark.	Ditto . .	Loss of anchor and chain. Eddy-tide .	Ditto . .	Ditto.
Off Boree bandar, Bombay harbour . .	Bombay coast .	Swamped. Heavy seas . . .	Ditto . .	Totally lost.
Abreast the Garden gate, Garden reach .	Hooghly river .	Collision with the flat *Jellinghee*. Carelessness of the serang of the flat.	Ditto .	None lost.
Ditto ditto . . .	Ditto . .	Collision with the steam-ship *Clan Macintosh*. Carelessness of the serang of the *Jellinghee*.	Ditto .	Ditto.
At Garden reach	Ditto . .	Damage to engines. Unavoidable .	Ditto .	Ditto.
At Kalpi anchorage	Ditto . .	Loss of anchor and chain. Not reported.	Ditto .	Ditto.
On the bank below the *Queen Anne* wreck buoy.	Ditto . .	Grounding. Carelessness of the pilot .	Ditto .	Ditto.
400 yards to the S. E. of Kumar kháli, in the Kornafuli river.	Chittagong coast .	Collision with the steam-ship *Calcutta*. Carelessness of the master of the *Mahratta*.	Ditto .	Ditto.
At Budj-budj	Hooghly river .	Loss of anchor and chain. Not reported.	Ditto .	Ditto.
In Point de Galle harbour (*exact position not given.*)	Ceylon coast .	Sprung a leak. Not reported . .	Ditto .	Not reported.
On the bank off Melancholy point . .	Hooghly river .	Grounding. Unavoidable . .	Ditto .	None lost.
On the bank below the Spit buoy in Sankral reach.	Ditto . .	Ditto. Ditto . . .	Ditto .	Partially lost; value ₹812.
Upper Hiraganj sands near Moyapur . .	Ditto . .	Collision wtth a buoy. Unavoidable .	Ditto .	None lost.
On a rock near the small tower, about a mile to the South of Chendni bandar, Bombay harbour.	Bombay coast .	Grounding. Unavoidable . .	Ditto .	Totally lost.
At No. 4 swinging mooring buoy in the Kornafuli river.	Chittagong coast .	Collision with the steamer *Mary*. Carelessness of the master of the tug.	Ditto .	None lost.
Ditto ditto . .	Ditto . .	Collision with the ship *Middlesex*. Carelessness of the master of the *Mary*.	Ditto .	.....
In the Rangoon river (*exact position not reported.*)	Burma coast . .	Sprung a leak. Carelessness of the engineer.	Ditto .	Partially lost; value ₹350.
In latitude 6° 49′ N., longitude 79° 10′ E. .	Ceylon coast . .	Ditto. Heavy weather .	Ditto .	.....
In the Indian ocean (*exact position not reported.*)	Indian ocean . .	Ditto. Not reported . .	Ditto .	None lost.
In the Inner harbour of Aden . . .	South coast of Arabia	Sprung a leak. Unavoidable . .	Ditto .	Ditto.
Near Korlai fort in the Revdanda creek .	Bombay coast .	Collision with the hodi *Sackri Salamati*. Carelessness of the master of the steamer *Bheema*.	Ditto .	Not reported.
Abreast the Garden house point, Garden reach	Hooghly river .	Collision with a buoy. Not reported .	Ditto .	None lost.
On the bank at Nynan with the marks on Eastward.	Ditto . .	Grounding. Carelessness of the pilot.	Ditto .	Ditto.
To the Eastward of Cross island, Bombay harbour.	Bombay coast .	Collision with the padow *Pospeer*. Carelessness of the tindal of the padow.	Ditto .	Ditto.
Ditto ditto . .	Ditto . .	Collision with the steam-ship *Mirzapore*. Carelessness of the tindal of the *Pospeer*	Ditto .	Totally lost.
Abreast the Baboo godown in the Kornafuli .	Chittagong coast .	Grounding. Carelessness of the pilot	Ditto .	None lost.
On the Manauli reef	Gulf of Manár .	Ditto. Carelessness of the tindal	Ditto .	Partially lost; value ₹150.

Number.	Name of vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
328	*Subramania Puravey*	95	British Indian brig	13th November	Colombo	Tuticorin	General; value ₹7,000
329	*Antonio*	1,214	British screw steamer	18th do.	London	Bombay	Ditto
330	*Kadirbax*	17	British Indian muchwa	19th do.	Bombay	Revdanda	None
331	*Atrato*	2,066	British screw steamer	20th do.	Ditto	Antwerp	General; value not stated.
332	*Sir William Armstrong*	1,474	Ditto	Do. do.	Newcastle-on-Tyne.	Bombay	Coals and coke; value not reported.
333	*City of Khios*	2,121	Ditto	Do. do.	Calcutta	London	General; value not known.
334	*Chupra*	1,432	Ditto	21st do.	Ditto	Bombay	Ditto
335	*Messina*	376	British schooner	22nd do.	Ditto	Dundee	Rice, grain, and ghee; value unknown.
336	*Atheletchmy*	130	Cingalese brig	Do. do.	Akyab	Kyouk Phyou	In ballast
337	*Monkseaton*	1,892	British screw steamer	24th do.	Bombay	Marseilles	2,800 tons general; value not reported.
338	*Coconada*	547	Ditto	28th do.	Chittagong	Calcutta	General; value not stated.
339	*Clan Alpine*	1,348	Ditto	30th do.	Bombay	Dunkirk	Ditto
340	*Undaunted*	470	British paddle steamer	2nd December	Employed on	Supply duties on	the Hooghly river
341	*Parklands*	1,133	British screw steamer	Do. do.	Penarth	Perim	1,700 tons of coals; value ₹17,000.
342	*Sona Patti*	16	British Indian muchwa	4th do.	Bhiwndi	Bombay	Grass; value ₹180
343	*Berkshire*	1,472	British ship	6th do.	Point de Galle	Chittagong	In ballast
344	*Akhikal Bahar*	144	British Indian brig	Do. do.	Narainganj	Ditto	Jute; value ₹71,700
345	*Neera*	199	British screw steamer	10th do.	Bombay	Cutch Mándvi	General; value not given
346	*Ramprasad*	23	British Indian padow	Do. do.	Porbandar	Bulsár	Slabs of stone; value ₹1,478.
347	*Castledale*	1,532	British screw steamer	12th do.	Calcutta	Dundee	Jute; value not reported.
348	*Floke*	335	Norwegian barque	Do. do	Ditto	Port Natal	Rice; value not stated.
349	*Karamania*	2,044	British screw steamer	Do. do.	Liverpool	Calcutta	General; unknown
350	*Daria Daulat*	23	British Indian muchwa	16th do.	Kalyan	Bombay	Grass; value ₹150
351	*Tyrone*	250	British paddle steamer	Do. do.	Calcutta	Dhámrá and Chándbali.	General; value not given
352	*Hansashari*	100	British steam launch	Do. do.	Employed as a	Ferry steamer in	the Hooghly river
353	*Daria Daulat*	6	British Indian padow	18th do.	Tárapur	Basseen	Fishing nets; value ₹170.
354	*Sarsuti*	375	British brig	20th do.	Employed	on Pilot duties at	the Sandheads
355	*Hengist*	1,125	British barque	22nd do.	Cardiff	Rangoon	1,571 tons coals; value ₹15,710.
356	*Pachumba*	544	British screw steamer	23rd do.	Bombay	Basra	Rice, piece-goods, tobacco, &c.; value unknown.

Waters during the year 1885—continued.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
On the Manauli reef	Gulf of Manár	Stranding. Carelessness of the tindal.	None lost	Partially lost; value ₹500.
In the Princes' dock channel, Bombay harbour.	Bombay coast	Collision with a dredger. Carelessness of the first officer of the steamer *Antonio*.	Ditto	None lost.
In the Revdanda creek	Ditto	Collision with the steamer *Uran*. Carelessness of the master of the steamer.	Ditto	.....
About 10 miles West of Mokha	Red sea	Collision with the steam-ship *Sir William Armstrong*. Carelessness of the masters of both steamers.	Ditto	None lost.
Ditto ditto	Ditto	Collision with the steam-ship *Atrato*. Carelessness of the masters of both steamers.	Ditto	Ditto.
Off Prinseps' ghât moorings	Hooghly river	Collision with a hawser boat. Careiessness of the assistant harbour master of the steam-ship *City of Khios*.	Ditto	Ditto.
On the bank above the Botanical gardens ghât, Garden reach.	Ditto	Grounding. Unavoidable	Ditto	Ditto.
At Diamond harbour	Ditto	Loss of anchor and chain. Heavy weather.	Ditto	Ditto.
75 miles W.N.W. of St. Martin's island	Bay of Bengal	Loss of masts, sails, &c. Heavy weather.	Ditto	.....
On the S. E. side of Prong's reefs to the North of the 17-feet patch, Bombay harbour.	Bombay coast	Stranding. Carelessness of the pilot	Ditto	Partially lost; value ₹1,250.
At the bar, entrance to the Kornafuli river	Chittagong coast	Collision with a buoy. Tides	Ditto	None lost.
On the sands off Liverpool point, South side of Perim Island, Straits of Bab-el-Mandeb.	Red sea	Grounding. Currents	Ditto	Ditto.
On the Jhúta bar, Dhámrá river	Orissa coast	Ditto. Unavoidable	Ditto	.....
75 miles N.N.W. of Perim island	Red sea	Damage to engines. Wear and tear	Ditto	None lost.
On a rock between the Kulwa and Chendni Railway bridges, Bombay harbour.	Bombay coast	Grounding. Stress of weather	Ditto	Totally lost.
At No. 3 mooring buoy, in the Kornafuli river.	Chittagong coast	Collision with the brig *Akhikal Bahar*. Tides.	Ditto	.....
Ditto ditto	Ditto	Collision with the ship *Berkshire*. Tides.	Ditto	None lost.
1½ miles Eastward of Diu head light-house	Káthiáwár coast	Collision with the padow *Ramprasad*. The padow not exhibiting lights.	Ditto	Not reported.
Ditto ditto	Ditto	Collision with the steamer *Neera*. The padow not exhibiting lights.	Ditto	Partially lost; value ₹60.
S.W. coast of Ceylon (*exact position not reported*).	Ceylon coast	Damage to engines. Not reported	Ditto	None lost.
On the flat below the Moyapur creek	Hooghly river	Grounding. Eddy-tide	Ditto	Ditto.
On the outlying patches of rock to the Northward of the Tripalore reef, 24 miles South of Madras.	Coromandel coast	Stranding. Neglect of lead	Ditto	Partially lost; value ₹53,334.
On a rock near the Chendni Railway bridge, Bombay harbour.	Bombay coast	Ditto. Carelessness of the tindal	Ditto	Totally lost.
Abreast Fort point	Hooghly river	Collision with the steam launch *Hansashari*. Carelessness of the masters of both vessels.	Ditto	Partially lost; value ₹2,000.
Ditto	Ditto	Collision with the steamer *Tyrone*. Carelessness of the masters of both vessels.	Ditto	.....
8 miles seaward of Tárapur	Ditto	Capsized. Stress of weather	Ditto	Partially lost; value ₹2,000.
5 miles N.W. by N.½N. of the Eastern Channel light-ship.	Sandheads	Loss of anchor and chain. Heavy seas	Ditto	.....
On the bank below the Brooking street wharf in the Rangoon river.	Burma coast	Grounding. Unavoidable	Ditto	None lost.
On the sands off Rás Shinas, just South of the port of Linjah.	Persian Gulf	Stranding. Carelessness of the master	Ditto	Partially lost; value ₹5,028.

Number.	Name of vessel.	Tonnage.	Flag and rig of vessel.	Date of casualty.	Whence bound.	Whither bound.	Cargo and its total value.
357	*Westmeath* . .	2,095	British screw steamer .	24th December	Singapur . .	New York .	2,000 tons general, value not known.
358	*Sam Weller* . .	964	Ditto . .	26th do. .	Maulmain .	Bombay . .	Teak timber; value not stated.

Waters during the year 1885—concluded.

Position of casualty and name of shoal, &c.	General locality where casualty occurred.	Nature of disaster and cause thereof when traceable.	Number of lives lost or saved.	Cargo lost or saved.
In latitude 13° N., longitude 57° E.	Arabian sea	Damage to engines. Not reported	None lost	Partially damaged; value not reported.
On the bank in Múpún bight, Salween or Maulmain river.	Burma coast	Grounding. Tides and currents	*Ditto*	*None lost.*

NOTES ACCOMPANYING THE CASUALTY STATEMENT FOR 1885.

JANUARY.

THE Cingalese wooden brig ROHOMANEE [of Colombo, 199 tons register, official number 31120], from Tuticorin to Ponáni, with a cargo of iron and salt. On the 2nd January the brig was anchored under the lee of the Church or Vauthevoo island in Tuticorin harbour (Gulf of Manár), to load her cargo of salt for the Malabár coast. On the 3rd after having finished taking in her cargo, she was shifting her berth to the Outer roadstead preparatory to clearing, when at 6 A.M. she touched the reefs to the southward of Church island, and as the tide was ebbing she remained fast. She was afterwards lightened of a considerable portion of the cargo, and on the flood-tide making at 2 P.M. she came off with little or no damage. The brig was aground for 8 hours. No loss of cargo. No loss of life. (The casualty could have been avoided had the tindal given the reef a wider berth.)

2. The British Indian padow LAXMIPRASAD [of Broach, 27 tons register, official number 1744, age 25 years], from Bombay to Dholera, with a cargo of cocoanuts. On the 5th January the padow proceeded up the Gulf of Cambay, when on the bar of the Khún creek the tindal anchored her, but she afterwards lay aground as usual on the recession of the tide. The place she was brought to had a sandy instead of a mud bottom, and owing to the force of the succeeding flood-tide the sand was washed away from under her, when at 6 A.M. the next day she capsized and a portion of the cargo and some tackle was washed out of her before she was righted again. Value of damage to the padow, ₹40; cargo, worth ₹771, was lost. No loss of life. (The accident was attributed to the negligence of the tindal in having anchored the padow in shallow water.)

3. The British Indian schooner LUCKHI BILAS [of Chittagong, 66 tons register, official number not reported], from Narainganj to Chittagong, with a cargo of mustard seed. The *Luckhi Bilas* was lying at anchor abreast of Mr. Finney's yard in the Kornafuli river (Chittagong coast). On the 6th January the brig *Mattookumar Lakshmy* came and anchored very close to the schooner, and was lying at single anchor. On the 7th at 3 A.M. whilst the brig was swinging to the ebb-tide, her stern got foul of the schooner's jibboom and carried it away. Value of damage to the *Luckhi Bilas,* ₹50. No loss of cargo. No loss of life. (The collision was caused by the carelessness of the tindal of the brig in having anchored so near the schooner, thus leaving no room for the two vessels to swing clear of each other.)

4. The British Indian wooden brig MATTOOKUMAR LAKSHMY [of Chittagong, 186 tons register, official number not reported], from Narainganj to Chittagong in ballast. On the 7th January the brig was lying at anchor too close to the

schooner *Luckhi Bilas,* when at 3 A.M. the brig in swinging to the ebb-tide came into collision with the schooner and broke the latter's jibboom. No damage to the brig. No cargo on board. No loss of life. (The casualty was owing to the carelessness of the tindal of the brig *Mattookumar Lakshmy* in having anchored so near the schooner, thus leaving no room for the two vessels to swing clear of each other.)

5. The British Indian schooner SUBRAMONIEM [of Tuticorin, 61 tons register, no official number], from Tuticorin to Colombo, with a cargo of chillies, onions, cloth, &c. At about 11 P.M. on the 8th January, when in latitude 8° 34′ N., longitude 78° 16′ E. (Gulf of Manár), owing to a bad look-out having been kept on board both schooners, the *Subramoniem* came into collision with the *Subramonia Puravy*. Value of damage to the *Subramoniem,* ₹300. No loss of cargo. No loss of life.

6. The British Indian schooner SUBRAMONIA PURAVY [of Tuticorin, 82 tons register, no official number], from Colombo to Tuticorin, with a cargo of betel-nuts, cocoanuts, &c. On the 8th January, at about 11 P.M., the schooner *Subramonia Puravy,* when in latitude 8° 34′ N., longitude 78° 16′ E. (Gulf of Manár), owing to bad look-out having been kept on board both schooners, was fouled by the schooner *Subramoniem.* Value of damage to the *Subramonia Puravy* ₹300. No loss of cargo. No loss of life.

7. The British Indian muchwa HINDOOSTANI [of Bánkot, 13 tons register, official number 4263], from Bombay to Alibág, with passengers and ₹1,500 in cash. On the 9th January the muchwa, whilst proceeding down the coast, met with heavy weather; at 4-30 P.M., a sudden gust of wind caught the sails and turned her over, about 2 miles to the southward of Kúndari island fort (Bombay coast). She was afterwards recovered. Value of damage to the muchwa, ₹150; the passenger's baggage and cash were lost, valued at ₹2,000. The crew, 5 men, and 4 passengers, were picked up by a passing muchwa and landed at Alibág.

8. The British iron screw steamer MAHARAJA [of Liverpool, 1,046 tons register, official number 81268], from Maulmain to Calcutta, with a cargo of teak timber and sundries. On the 9th January, at 7-45 A.M., the tide at the time being half-flood and the Múpún dock gauge showing 6½′ the pilot hove up the anchor and proceeded down the Maulmain or Salween river (Burma coast), going half speed, as the vessel's anchors were not secured. At 8 A.M., in consequence of the pilot having steered her considerably to the eastward of the channel, the *Maharaja* grounded on the eastern edge of the Kyauktan shoal. The weather was fine and clear and the wind was blowing light from N.E. On sounding round the steamer 2½ fathoms were found amidships on starboard side, 2¾ fathoms amidships on port side and forward, and 3 fathoms aft; and before the accident occurred there was 3½ and 3 fathoms in mid-channel. The engines were kept going full speed ahead and astern, and as her head canted to the westward the port anchor was let go at 8-35 A.M., and ten minutes afterwards she floated; as she had sustained no damage, the pilot, with the consent of the master, proceeded with the vessel down the river. The pilot stated that Pilot notice No. 373, dated the 22nd November 1884, wherein it was laid down that the Kyauktan buoy must be kept to the westward of South pagoda, was read by him previous to his proceeding down on that occasion with the *Maharaja.* In steaming down she passed the Kyauktan buoy a fair berth to the westward, steering down for the Múpún island red buoy; so as to avoid the shoal alluded to in that notice, but did not note the direction of the buoy, as at that time it was a stern mark, until the water shoaled to 3 fathoms, and immediately afterwards the vessel took the ground off Múpún island with Kyauktan black buoy halfway between South pagoda and the Flagstaff pagoda, three-fourths of a cable's length below the buoy; the pilot then noticed the buoy to the

westward of South pagoda. He stated that had the buoy been placed on the lower edge of the shoal it would not have been possible for the casualty to have happened. The River Surveyor reported that he proceeded down the Salween river on the forenoon of the 15th with the pilot of the *Maharaja,* and at low-water sounded the spot pointed out by him and found 9½ to 10′ of water; the mark which was on at the time was the Kyauktan shoal buoy in the hollow just between the Signal staff and the South pagodas. The shoal to the westward, which the pilot stated as mentioned in notice No. 373, was not in that part of the channel, but was just above the Múpún island red buoy, and the water given on it was 12½′. With regard to the shifting of the buoy to the southernmost end of the shoal as suggested, the River Surveyor stated that if moved to that end it would only expose the 9′ above, which was also at the buoy. The only way the buoy could be moved, if required, would be to the W.S.W. into about 15′; if the marks given in notice No. 377 had been kept on, the steamer would not have grounded. The pilot stated that after the accident he examined the locality, accompanied by the River Surveyor, and found that the shoal extended from above Múpún island out beyond the Kyauktan black buoy some distance, at the buoy there were 8′ gradually deepening out to the westward and down along the island to nearly halfway between the Kyauktan black buoy and the Múpún island red buoy, and out from the island to near the middle of the island channel. The pilot stated that he thought it essential for the safe navigation of that locality, as the channel by Múpún island was apparently filling up and the deep channel was likely to be where the red buoy was laid, that the black buoy should be moved from its position nearly a cable's length to the westward, and that a smaller black buoy be placed three or four cables' lengths below the upper buoy on the outer and lower edge, or the red buoy placed there and painted black. The steamer was aground for 40 minutes. No damage to the *Maharaja.* No loss of cargo. No loss of life.

The Port Officer, Maulmain, recorded that on receiving the pilot's report he requested him to state whether he perused a copy of the last Pilot notice regarding that part of the channel where the accident occurred, and why he had not followed the directions given therein. He did not consider the pilot's reply satisfactory; and as he alleged that the casualty would probably not have happened had the Kyauktan buoy been placed on the lower edge of the shoal, the River Surveyor was instructed to examine, in company with him, the spot where the *Maharaja* touched the ground, and also to report whether the Kyauktan shoal buoy would bear shifting as suggested by the pilot. From the correspondence, the Port Officer was of opinion that the steamer was out of the recognized channel when the vessel grounded, and that the pilot was to blame for the grounding. The buoy alluded to might perhaps be better placed farther to the westward, but the Port Officer did not think that that bore materially on the present case; and as some days might elapse before he had the opportunity of visiting the spot to decide regarding the position of the buoy it was thought prudent not to delay the report until that matter was settled. A subsequent notice respecting that shoal, and warning pilots to keep to the westward of the channel for deep water, was issued a few days after the casualty, which was considered to be quite sufficient intimation concerning the danger. The steamer *Maharaja* did not remain ashore very long as she grounded on a rising tide, and appeared to have sustained no damage. She had proceeded on her voyage to Calcutta, and her return to Maulmain was very uncertain. Besides the documentary evidence, in the possession of the Port Officer, to enable him to hold the usual Court of Inquiry, there was the evidence of a native pilot who witnessed the accident, but as the pilot had waived his claim to a Court being held, and was desirous of abiding by any orders passed departmentally

by the Officiating Commissioner, Tenasserim Division, in the case, the Port Officer recommended, under Rule XXIX of the Maulmain Pilot rules, that the pilot's license be suspended for one month.

The Officiating Commissioner, Tenasserim Division, remarked that it seemed from the Port Officer's report that the pilot did not wish to have a Court of Inquiry held in this case, but desired to abide by any orders that might be passed departmentally. From the report of the River Surveyor it appeared that the steamer *Maharaja* was out of the recognized channel when she grounded, and that that position was due to a neglect of the instructions issued in a recent Pilot Notice which the pilot of the *Maharaja* should have observed. The pilot had an opportunity of defending himself, but had not succeeded in showing that he was free from blame. Under those circumstances he was liable to punishment under Rule XXIX of the Maulmain Pilot rules, and the Officiating Commissioner, Tenasserim Division, accepted the recommendation and directed that the pilot's license be suspended for one month. The Officiating Commissioner, Tenasserim Division, observed that the correct position of the buoy which had formed the subject of enquiry in this matter should be settled as soon as possible, a report being submitted on the arrangement finally made. Whereupon the Port Officer, Maulmain, replied that, after visiting the spot where the steamer grounded, and examining the shoal in company with the River Surveyor, it was considered that there existed no great need for shifting the buoy as suggested by the pilot. The mark given for clearing the shoal, it was true, was better suited as a mark for vessels steering up the Salween river, but there was no reason why it should not also be used as a stern mark. Apart from that, there was no reason whatever why the pilot of the steamer should have hugged the eastern side of the channel where there was deeper water in mid-channel and to the westward, and the Port Officer did not therefore think it necessary to place a second buoy to mark the Kyauktan shoal. The buoy, however, might be better placed rather farther away from the danger, and if shifted about three-fourths of a cable to the westward vessels of the steamer *Maharaja's* draught might then, if compelled by any incident to do so, steer close and pass it in safety; the River Surveyor had therefore been requested to shift the buoy accordingly. The pilot was invited by the Port Officer to accompany him to inspect the spot where the accident happened, but he explained that through a mistake as to the place of starting he was unable to attend, and the Port Officer did not think that he purposely absented himself.

9. The British iron screw steamer CHINDWARA [of Glasgow, 1,486 tons register, official number 80442], from Calcutta to Bombay *vid* Indian coast ports, with a general cargo. The steamer left Calcutta on the 21st December 1884, and after touching at several ports arrived at Calicut on the morning of the 10th January of the following year; she left that port at about 12-30 A.M. on the 11th, bound for Tellicherry. There was a light wind, and it was hazy; they were about 2 miles from the port of Tellicherry. The course of the steamer was N.N.W. $\frac{3}{4}$ W., the engines were working dead slow, and they were going $4\frac{1}{2}$ knots an hour. The pattimar *Futhe Salaam* exhibited no lights, and consequently she was not seen until close under the steamer's bow. At 1-45 A.M. on that day the officer on watch sighted a light on the port bow, and immediately after the *Futhe Salaam* was seen close under the starboard bow with no light burning. The *Chindwara's* helm was put hard-a-starboard and the engines stopped and reversed, but in spite of all the measures taken to avoid the casualty the steamer caught the pattimar's port bow and turned her over, the Calicut light-house bearing E. by S. $\frac{1}{2}$ S., distant 8 miles in $13\frac{1}{2}$ fathoms of water (Malabár coast). A boat was immediately lowered from the *Chindwara* and the crew of the pattimar (6 men) were picked up and taken to Vengurla. The Agents of the steamer paid R250 as compensation to the

owner of the *Futhe Salaam* towards the loss sustained. No damage to the steamer or cargo. No loss of life.

The Governor of Madras remarked, that this case differed from that of the grounding of the steam-ship *Africa,* which latter casualty occurred on the Malabár coast in October 1881—no Court of Inquiry having been convened by the Madras Government. A Court having been held at Calicut in the matter of the *Africa* was, in the Hon'ble the Advocate General's opinion, the legal difficulty there; the *Chindwara-Futhe Salaam* case seemed on all fours with the collision of the barque *Asie Mineure* with steam-ship *Nerbudda,* on the Malabár coast, in March 1884. The Solicitor to the Bombay Government reported that the opinion of the Hon'ble the Advocate General was to the effect that as the Madras Government had intimated that they had taken no action in the matter, and were desirous that a Court of Inquiry should be held at Bombay, such a Court might be assembled at Bombay under section 6 of the Indian Merchant Shipping Act V of 1883. The Port Officer of Bombay reported that the witnesses required to be called on behalf of the *Chindwara* were not in Bombay, but the Agents of that steamer undertook to arrange to have all the witnesses in hand on that vessel's return to Bombay within a month; and if the Government decided that a Court be convened, he suggested that it be assembled at that time. No loss of life occurred, and whatever decision would be arrived at by the Marine Court, it could not affect any civil action which might be instituted for the recovery of compensation for the loss of the pattimar. The tindal of the *Futhe Salaam* was in Bombay, and the steamer's Agents were endeavouring to find and to send him to the Port Office, in order that his statement of the story might be recorded; and if from the deposition it seemed that the *Chindwara* was not to blame for the accident, and that afterwards that vessel adopted all measures to render assistance to the crew of the pattimar (as it primarily appeared she did, from having taken them on board and landed them at Vengurla at their own request), it seemed, therefore, that very little, if any, purpose would be served by the Special Marine Court. Subsequently the tindal's statement was taken by the Port Officer of Bombay, who reported that it was apparent that the *Futhe Salaam* had not the regulation lights exhibited when the *Chindwara* was first seen to be approaching, and that when they were shown they were placed on the opposite sides to that on which they were by regulation required to be done; and the tindal having had every opportunity of correcting any misapprehension he might have had on that point by having a model presented to him, having persisted in his statement, only verified the fact but also evidenced his utter ignorance of the Rules of the Road. The master of the steamer, however, asserted that the pattimar was not showing any lights, and in either case, whether of the lights being improperly, or any not having been exhibited, the pattimar was equally to blame for the collision; and no lives having been lost, it seemed that a Special Court to investigate the circumstances of this casualty was unnecessary. Eventually the British India Steam Navigation Company had, as a compassionate measure, granted ₹250 to the owner of the pattimar, as he was found to be left penniless; farther, it was not evident that the *Futhe Salaam* had been totally lost; and so far as compensation for the loss of the cargo was concerned, the finding of a Marine Court would probably not materially influence the decision of a Civil Court on the case if an action was brought. The Port Officer reported that the Agents of the steamer had apparently ignored the spirit of the guarantee given, offering, if the Government permitted the Inquiry to be held on the *Chindwara's* return to Bombay, "to arrange to have *all* the witnesses in hand," whereas it appeared that there were only *two* available, and the vessel four days afterwards sailed; so that if the Government decided that a Special Court should be held, considerable delay would probably again occur, for which, if inconvenience resulted to the Company

by the master and the second officer being detained from proceeding in their vessel, the Agents would be alone to blame; but the Port Officer did not think that any good was likely to result from a Special Court. As however, considerable delays had been allowed to occur by the Agents and master in furnishing notices, which they were bound to do by law, of the details of accidents met with by their vessels, the occurrence thereof only having been cursorily mentioned in the arrival reports of the ships, and farther information, or separate notice thereof, although repeatedly called for, having been apparently wilfully or through carelessness delayed or neglected, and as the rapid despatch of coasting vessels rendered it almost impossible under those circumstances to consider and decide what measures might be necessary in connexion with those accidents, it was suggested that the Agents be advised of the inconvenience to themselves which might ensue by not giving immediate notice of such accidents, and of the penalty which was enacted for not doing so. Having regard to the important interests involved, that in the event of delay in this matter in future the Port Officer might be authorized, under the advice and assistance of the Government Law Officers, to take proceedings to enforce the law against those who rendered themselves liable to it. As special instances of those the Port Officer cited two very recent cases which had reference to the general custom of that Company in regard to all casualties met with by the British India Steam Navigation Company's steamers on arrival at Bombay. For the reasons stated by the Port Officer, the Governor of Bombay did not consider it necessary to convene a Court of Inquiry to investigate the circumstances connected with this collision. The Agents were addressed with reference to the delay on their part in intimating to the Marine Authorities all accidents met with by the Company's steamers on their arrival at Bombay. The Governor of Bombay was pleased to authorize the Port Officer to take proceedings, in future, under the advice and assistance of the Government Law Officers, to enforce the law against those who rendered themselves liable to it. His Excellency the Governor of Madras directed that, in future, steps be taken to ascertain whether there were *primâ facie* reasons for holding a Court of Inquiry. In the case re *Chindwara* and *Futhe Salaam*, the Governor of Madras observed that there was nothing to prevent the Port Officer of Calicut taking down from the tindal of the pattimar a statement similar to that furnished to the Port Officer at Bombay. Had that been done, the Government would not have pressed for a Court of Inquiry.)

(For an account of the Futhe Salaam see Wrecks No. 3.)

10. The British iron ship RAVENSCRAG [of Glasgow, 1,263 tons register, official number 53386], from Chittagong to The United Kingdom, with a cargo of jute. On the 12th January the ship, in charge of a pilot, and in tow of the tug steamer *Mary*, was proceeding down the Kornafuli river (Chittagong coast); at 10 A.M. the pilot got over the Inner bar all right, when the semaphore showed 8½′ and whilst nearing the Outer red buoy, the marks just in line, the water shoaled from 4 fathoms to 3¾ fathoms; the steamer being then on the *Ravenscrag's* port bow the pilot ordered her to port her helm and also ported the ship's helm at once, but she did not pay off in time, and unfortunately the *Ravenscrag* grounded at 10·10 A.M., on the Outer bar spit, 100 feet inside the Outer bar buoys. The accident having occurred just at the top of high-water the vessel would not come to, but remained there and sued about 5′. She subsequently got off on the night's flood-tide, after having been aground for 11½ hours. The pilot safely anchored the ship in 7 fathoms of water, when on the following morning she sailed on her voyage. He stated that the grounding was unavoidable; the vessel was carrying good water, but when nearing the Outer bar she sagged a little too near the spit, he there-

upon immediately ordered the helm of the steamer and the ship to be ported, but the tug getting on the port bow prevented the *Ravenscrag* from answering her helm quickly, and she consequently touched the ground so slightly that it was not known for some time that she was ashore. Trifling damage to the *Ravenscrag*. No loss of cargo. No loss of life. (The Port Officer, Chittagong, recorded that he enquired into the matter, and did not consider any Departmental Committee of Inquiry necessary, but warned the pilot to be more careful. It appeared that on sounding the bar on the 15th January, it was found that the Eastern spit had extended a great deal during last neap tides.)

11. The British Indian iron steamer SHASTRI [of Glasgow, 83 tons register, official number 89913], from Harnai to Bombay, with 420 passengers but no cargo on board. The tindal stated that on the night of the 13th January the steamer was proceeding out of Harnai harbour (Bombay coast), and that at 8-50 P.M. he was steering on a N.N.W. course, going at the rate of 8 knots an hour, and that the *Khengty* was entering the harbour on a S.S.E. bearing. The tindal of the steamer when off Pacha bandar sighted the muchwa one point on the port bow, with no lights burning at all; the sea was moderately smooth, and it was a dark night; the wind was from the northward but light, and the weather moderate. The *Shastrî's* engines were stopped and reversed full speed astern and the helm put hard-a-port, but all to no purpose, as the steamer's port side fouled the *Khengty;* the muchwa immediately sank. The crew of the muchwa were picked up and taken on board the steamer, whence they were landed at Bombay. No damage to the steamer. No cargo on board. No loss of life.

(For an account of the Khengty, see Wrecks No. 4.)

12. The British iron screw steamer MOUNT TABOR [of Glasgow, 1,494 tons register, official number 86685,] from Suez to Rangoon, with a general cargo. On the 13th January the steamer, in charge of a pilot, was proceeding up the Rangoon river (Burma coast). The wind was light from the S.W., the weather clear, and full flood-tide; at 3 P.M., whilst in the Liffey reach, the vessel met with an accident to her machinery caused by the cog wheel of the windlass carrying away whilst the anchor was hanging to the hawsepipe, with 120 fathoms of chain. The pilot, to prevent the vessel running over the anchor, immediately ordered the engines to be put full speed astern. No damage to the hull or cargo. The repairs to the windlass, including cost of purchasing new anchors and chains, was estimated at £200. No loss of life. (The casualty was accidental.)

13. The British iron ship KHERSONESE [of London, 1,711 tons register, official number 8198], from Cardiff to Bombay, with a cargo of coals. About 9 A.M. on the 16th January the ship, whilst 60 miles S.W. of Cape Comorin in latitude 7° 30′ N., longitude 76° 50′ E. (Malabár coast), heading N. by W., with a brisk breeze from N.E. by E., the wind freshened up very rapidly to a hard gale from the same direction; on the crew clewing up the sails the head of the maintopmast was carried away, taking with it the fore royal yard and mizentopgallantmast; the foretopsail, topgallantsail, mainsail and maintopsail split and several braces carried away. At 2 P.M. the gale moderating fast, she was put about on her course under all plain sail. At 8 P.M., there was a light breeze and clear weather; during the remainder of the voyage the weather was exceptionally good. She arrived at Bombay dismasted, and after having been surveyed and repaired she proceeded from thence to Vizagapatam. Value of damage to the ship, about £800. No damage to the cargo. No loss of life.

14. The British Indian padow GAORIPRUSAD [of Dholera, 23 tons register, official number 15, age 30 years], from Bombay to Dholera, with a cargo of cocoanuts. On the 16th January the padow proceeded up the Gulf of Cambay, and when opposite the Khún light-house the tindal anchored her, and

she lay aground as usual on the recession of the tide. The place she was lying in had a sandy instead of a mud bottom, consequently the force of the current washed the sand away from under her, when, at 6 P.M., she heeled over on her side and capsized. A portion of the cargo was jettisoned in order to lighten her on the next flood-tide, but without effect. She was ultimately recovered with little or no damage. Cargo, worth ₹142, was lost. No loss of life. (The casualty was caused by the negligence of the tindal in having anchored the padow in shallow water.)

15. The British Indian padow KHUDABUX [of Bulsár, 29 tons register, official number 1709], from Bombay to Dholera with a cargo of gunny bags, coir yarn and cocoanuts. On the 15th January the padow proceeded up the Gulf of Cambay, when the tindal anchored her in the Khún creek, but afterwards lay aground, as usual, on the recession of the tide. The place she was lying had a sandy instead of a mud bottom, consequently the force of the current washed the sand away from under her, and at 4 A.M. on the following day she heeled over on her side and capsized. The crew, for the purpose of lightening the padow and thus enable her to rise quickly with the in-coming tide, jettisoned a portion of the cargo, when she finally floated off. Value of damage to the padow, ₹160; cargo, worth ₹190, was lost. No. loss of life. (The accident was attributed to the negligence of the tindal in having anchored the padow in shallow water.)

16. The British iron screw steamer WILLINGALE [of London, 1,312 tons register, official number 89515], from Liverpool to Penang, with a general cargo. On the 17th January the steamer, when in the Red sea (exact position not given), met with an accident to her machinery, the engine sole plate, the cylinder cover and connecting rod having broken; cause not reported. The engines being disabled, she put into Perim harbour the same day for repairs. The vessel after having been temporarily patched up, coaled and proceeded the next day (the 18th) bound to Penang. Value of damage to the machinery not reported. Value of damage to the *Willingale* and cargo not reported. No loss of life. (The Shipping Master, Penang, reported that the master of the steamer did not give notice of the accident to him whilst the vessel was in that port. Beyond the above information, which was extracted from the newspapers, no particulars have reached this Department).

17. The British Indian padow LABSAVAY [of Bulsár, 20 tons register, official number 439, age 32 years], from Bulsár to Dholera, with a cargo of bamboos. On the 18th January the padow was anchored by the tindal close to the North bank of the Khún creek (Gulf of Cambay). On the recession of the tide she grounded, and was left with her stern much lower than her bows, so that when the flood-tide made at 5-30 A.M. on the 19th, she filled with water and sank. She was ultimately recovered with considerable damage, a portion also of the cargo was washed out of her. Value of damage to the padow, ₹300; cargo, ₹145. No loss of life. (The casualty was owing to the negligence of the tindal in having anchored the padow in shallow water.)

18. The British wooden schooner PHAROS [of Calcutta, 50 tons register, belonging to the Indian Government] was employed as a buoy vessel in the Rangoon river. On the 20th January the steamer *Avagyee,* outward bound, in charge of the master (a licensed pilot of the port of Rangoon), was proceeding down the river. At about 9 A.M., the steamer fouled the buoy vessel, as the latter was in the act of weighing the moorings of the spit buoy, off Elephant point, entrance to Rangoon river, Gulf of Martaban (Burma coast), thereby doing the *Pharos* considerable damage, necessitating her being towed up to town for examination and repairs. The syrang who was in charge stated that the buoy vessel was made fast to the chain on the mooring of the spit buoy which was hove short. He said that when he saw the *Avagyee* going round Elephant

point she was proceeding on the usual course, but when she was within two ships' lengths, the steamer seemed to steer straight on to the schooner. He considered that she would very likely strike the buoy vessel, and therefore ordered the crew, who were taking up the mooring of the buoy at the time from the fore part, to go to the stern. It was a clear morning, the weather fine, and the tide was half ebb. The syrang positively stated that the people on board the steamer did see the *Pharos,* but made no signs to her. He said that he stood up on deck and held up his hand, but made no outcry. The schooner was not sheering about, and there was plenty of room in the channel, as the tugs *Rangoon* and *Salween* and another vessel all safely passed the buoy vessel that morning. The spit buoy had not been shifted. The syrang said that he hoisted a large red flag at the maintopmast head at the time for the purpose of showing that the *Pharos* was anchored at the spit buoy. The seacunnie stated that on the evening of the 19th January the schooner had hove in the chain of the spit buoy. The crew began to heave early the next morning, and they continued at work till about 9 o'clock. He said that when the steamer was 80 to 100 yards distant the syrang told him and the crew to run away to the aft part of the vessel, and shortly afterwards the *Avagyee* fouled the *Pharos,* breaking the latter's bowsprit and doing other serious damage. He stated that the channel was clear for vessels at the time of the collision. The *Pharos* was immediately towed up to town (Rangoon) for repairs. Value of damage to the schooner, ₹3,000. No loss of life. (The Port Officer, Rangoon, stated that the accident occurred in broad daylight; there being no fog or haze to obscure the position of the buoy vessel, he attributed the casualty to the carelessness or neglect on the part of the master (also a licensed pilot) of the steamer *Avagyee* in not having kept his vessel in mid-channel.)

19. The British iron screw steamer AVAGYEE [of Glasgow, 247 tons register, official number 60431], from Rangoon to Tavoy, with 65 passengers and a general cargo. It appeared that the steamer in charge of the master (who was also a licensed pilot for the port of Rangoon) left the Crisp street pontoon and proceeded down the Rangoon river at 6-30 o'clock on the morning of the 20th January, bound for Tavoy, Mergui, &c., with mails and passengers on board and a general cargo. All went well with the exception that the master found she was steaming more slowly than usual, and was not so lively on her helm until after passing Elephant point, when the master could not perceive the spit buoy but made out the schooner *Pharos* lying, as he thought, about mid-channel. The master stated that as he knew that the spit buoy was about to be shifted he consequently concluded that it had been lifted, and that it would be perfectly safe to pass on either side of the buoy vessel *Pharos.* He accordingly elected to pass to the westward, the more specially as the master had observed the tug *Salween* (which vessel had passed the *Avagyee* off Elephant point) had steered in that direction. The *Avagyee* upon approaching the *Pharos* nearly end on but still a long way off, the pilot ordered the helm of the steamer to be put a-port, and observing still that she was not answering so promptly as usual, gave the order "hard over," and was told by the man at the wheel "hard over, it is," in Hindustani. At 9-30 A.M. the steamer was getting now dangerously near, so the pilot jumped up and ran to the helm and succeeded in putting over a few more spokes. Immediately after the *Avagyee* began to feel the influence of the helm, but it was too late, and the steamer came into collision with the schooner which was lying at the spit buoy, entrance to Rangoon river, Gulf of Martaban (Burma coast); the bowsprit of the *Pharos* caught the bridge rail of the *Avagyee* and carrying it away broke the bowsprit. The pilot, who was standing near the bridge rail at the time, received a severe blow underneath the right ribs and was knocked over. The pilot on recovering himself found that the two vessels had separated from each other, and after ascertaining that the damage done to the

Avagyee was not of such a nature as to cause immediate anxiety, he turned the steamer round and steamed up against the tide to see whether the buoy vessel required any assistance. The master upon learning that she did not need any help, proceeded with the *Avagyee* on his voyage. Upon the steamer's arrival in Mergui harbour a man was sent down to examine the propeller, and he succeeded in disentangling about 120′ of 2″ line similar to that used for fishing nets on the Burman coast. The master was of opinion that some huge net must have got foul of the propeller on the *Avagyee's* way down the Rangoon river, and thus impeded the steaming power and also the steering qualities of the steamer. The first officer of the steamer deposed that on going down the river he noticed that the *Avagyee,* when near Chokey point, steamed slower than usual, and heard the master complain that she was not steering properly. At the time of the accident the master was in charge, and the first officer was below, but when he heard a crash he at once ran to the bridge, and was ordered by the master to turn her round. He stated that the vessel steered badly all the way down to Mergui and back again. At Mergui port the steamer's propeller was examined and found a lot of 4″ coir rope of native manufacture round it, which was removed, she then steered a little better, but not much. The chief engineer stated that when in Mergui harbour he examined the propeller, and found 94′ of rope wrapped round it; this rope, which was tarred, was about $\frac{7}{8}$ inches in diameter, and unlike any that was used on board steam-ships. It had a smell such as rope which had been in water for a long time. There were also 15′ of coir rope which looked as if it belonged to some sailing vessel similar to the rope employed for hoisting up vessel's boats. The first rope seemed to have been on for some time, as it was tightly coiled round and had to be cut off. The *Avagyee* had been proceeding very slowly, the engines went at the usual rate, but not well through the water. The chief engineer stated that the vessel had been getting gradually slower for some voyages, but it showed itself more decidedly on the present voyage. It was in March 1884 when the steamer was last in dock. She was on the gridiron on the 26th January 1885, and on examination was found to be very dirty, which the chief engineer considered would greatly affect her speed. He positively stated that he noticed in some vessels that after being at sea 8 months they were not very dirty. The pilot accounted for having ported his helm because he was uncertain as to the exact position of the spit buoy and went to the westward, as he thought that the set of the tide would keep his vessel clear of the buoy, whereas, if he had gone to the eastward, he would be swept on to the buoy. At the time of the accident it was half-ebb and the tide was setting West of South; the ebb sets generally from South to S.W., but it continually changed. The pilot stated that his reason for going so near the buoy was that to make certain whether the spit buoy had been shifted, he steered for the buoy vessel which he knew to be in the vicinity. He said that without the spit buoy or the *Pharos* he had other marks by which he would know his position. He would have steered to the southward or eastward till he was closing in Old woman's village with Elephant point, then haul to the southward until the light on Eastern Grove bore N. N. E., when keeping the light-house astern he would steer down the channel. The master said that being uncertain of the exact position of the spit buoy, he did not use the mid-channel marks. The master stated that when he thought a collision was inevitable he did not slow his engines, as he considered that had he done so the steamer would have become unmanageable and the collision would have been of a more serious character. Value of damage to the *Avagyee,* ₹200. No loss of cargo. No loss of life.

[A Special Court of Inquiry was held at the Court of the Deputy Commissioner, Rangoon, by the District Magistrate on the 31st January and 2nd February, under the provisions of section 6, Act XII of 1883 (British Burma

Pilots' Act), for the purpose of investigating a charge of breach of the Rangoon Pilot rules under the above Act, and a charge of incompetency or misconduct in the discharge of the duties brought against the master of the steam-ship *Avagyee,* who held a special pilot's license for the port of Rangoon. On the 31st January a copy of the statement of the grounds under section LXXI of the Rangoon Pilot rules, upon which such charges were framed, and of the charge itself, were then handed to the defendant. The Court recorded that of the three assessors, one, the master of a sea-going vessel lying in the port, was appointed under section 9 of the above Act by the Vice-Chairman of the Port Commissioners, and the others, a merchant and a pilot, by the President. As provided in section 10, clause 2, of the Act, the assessors were summoned by the President. The Court having assembled pursuant to citation the defendant (a licensed pilot of the port) was called and the papers and correspondence relating to the case were read and filed. The witnesses for and against the prosecution were then examined, and on conclusion of their evidence the defendant was examined by the Court, after which he was farther asked for his defence. The defendant replied that he abided by the written statement which he had put in. The Court having read it, directed the defendant to produce the witnesses for his defence, and after having heard the evidence, ordered the parties to withdraw, in order that they might consider their finding and order. The Court, after having duly considered all the evidence that had been brought before them, were of opinion that had the master of the *Avagyee* (also a licensed pilot for the port of Rangoon) followed the instructions laid down for the navigation of the channel —particularly if he had any doubt as to the position of the spit buoy— the collision would not have occurred. The Court were further of opinion that as the pilot was aware that the steamer was not steering well, he should have put his helm either up or down sooner than he did, and so have avoided the danger of going too close to the schooner *Pharos,* which vessel at the time of the casualty was weighing the moorings of the spit buoy. The Court were also of opinion that when the master of the *Avagyee* saw a collision was inevitable he should have eased his engines. The Court found the defendant guilty, and recommended that his license as a pilot be suspended for a space of six months.]

The Chief Commissioner of British Burma remarked that he accepted the finding and recommendation of the Court that the master of the steam-ship *Avagyee's* license as a pilot of the Rangoon river should be suspended for a term of six months.

20. The British iron screw steamer WING SANG [of London, 1,517 tons register, official number 87151], from Calcutta to Hong-Kong *viâ* The Straits, with opium and a general cargo. On the 21st January the steamer, in charge of a pilot, was proceeding down the Hooghly river; at 2-55 P.M., when the vessel was above the Upper Ulabaria creek, the port wheel chain parted: the engines were immediately stopped and put to full speed astern, before the steamer lost her way she touched the bank with her stem, but came off at once. She afterwards anchored in order to repair the damage to the wheel chain, and proceeded again on her passage down the river at 3-28 P.M. No damage to the steamer or cargo. Value of damage to the machinery none. No loss of life. (The casualty was accidental.)

21. The British iron screw steamer INDIA [of Glasgow, 2,634 tons register, official number 85861], from Calcutta to London, with a general cargo. On the 21st January the steamer, in charge of a pilot, was proceeding down the Hooghly river; at about 12-30 P.M. whilst the *India* was being turned at Garden reach, and nearly athwart the channel, a native boat laden with coal tried to cross her bows; but the crew of the boat finding that they could not do so, lost all presence of mind and stopped pulling, and made an attempt to turn the boat.

Subsequently the boat drifted across the bows of the steamer, which was nearly dead in the water, and engines going full speed astern, the boat's side was knocked in, and she sank about mid-stream abreast the Garden house steps. The first officer of the steamer stated that he was engaged securing the starboard anchor, when he observed a native boat, about 10 yards from the *India,* drifting down with the tide, and the crew on board of her making no attempt whatever to keep clear of the steamer, when she shortly afterwards came into contact with the *India's* stern, the boat thus striking the steamer with the broad of her starboard bow. The third officer was engaged at the telegraph, and had just then sent an order to go full speed astern, when his attention was called by the pilot to a native boat drifting with the current towards the steamer's stem. The boat was subsequently struck, and sank almost immediately. No damage to the steamer or cargo. Value of boat not reported. (The collision was attributed to the crew of the boat having tried to cross the *India's* bows, whilst she was turning.)

22. The British iron screw steamer SAINT DUNSTAN [of Liverpool, 1,451 tons register, official number 84073], from North Shields to Bombay, with a cargo of coals. On the 22nd January the steamer, at 2-15 A.M. whilst in the Arabian sea in latitude 17° 01′ N., longitude 64° 48′ E., met with an accident to her machinery, the high pressure piston rings, and bottom part of cylinder having broken. She was afterwards surveyed and repaired at Bombay. The weather at the time was cloudy, and there was a light easterly breeze blowing at the rate of 11 to 15 miles. No damage to the hull. No loss of cargo. Value of damage to the machinery, ₹4,000. No loss of life. (It was reported that this casualty was an unforeseen accident, as it was caused by bolts in the bottom of the high pressure cylinder giving way.)

23. The Swedish wooden barque FRANS [of Sundsvall, 356 tons register, no official number], from Calcutta to Port Natal, with a cargo of rice. On the 22nd January the barque, under charge of a pilot and without steam, proceeded down the Hooghly river, and on the following day anchored at Nynan for the night. At 6 A.M. on the 24th she weighed anchor and proceeded down, and as she passed the flat buoy below Nurpur point, the wind then being very light, the pilot kept her well out on the edge of the sand, in order that she might have a chance to drift through the Eastern Gut, James and Mary's. The barque had proceeded down on the edge of the sand for nearly 15 minutes, when she shoaled into 3½ fathoms. By that time the wind had failed her altogether, and notwithstanding that the helm was put hard-a-starboard, the spanker brailed in and the after-staysails run down; she did not answer, not having steerage way. The pilot stated that the *Frans* was then in a quarter less 3 fathoms with her head down the river on an ebb-tide, and he, therefore, considered that by letting go an anchor in such water would have been simply running a great risk of driving it through her bottom; so he held on, hoping to drift into the current setting on to Hooghly point without shoaling any further, but in vain. At 8 A. M. the *Frans* unfortunately, before the pilot got into that influence, grounded on the sands off Hooghly point; the tidal semaphore bearing about S.E. ½ E., the Anchoring creek obelisk N.E. ½ E., and the Muckraputti buoy S.W. ½ W. As the flood-tide made the pilot paid out 60 fathoms of chain on her port bower, because it was observed that the barque was driving and apparently kedging to the westward. The *Frans,* after having discharged about 150 tons of her cargo, floated off with the aid of the steam-tug *Clive* at 10-45 A.M. on the 28th. She was aground for four days. The pilot subsequently, at the request of the master, put back to town (Calcutta) for examination. The Surveyors reported that they boarded the barque *Frans* on the 2nd February, lying at No. 22 swinging mooring, for the purpose of holding a survey on her in order to ascertain whether the vessel had received any damage from her grounding. On a perusal of the log-book, it was found that the barque, whilst in pilotage charge, in pro-

ceeding down the Hooghly river on the 24th January under sail, grounded on the sands off Hooghly point, where she remained for four days. The soundings round the vessel were 10′, 12′, and 14′. The tug *Clive* went to her assistance with six cargo boats, and the cargo was discharged with all despatch, when on the 28th the *Clive* made fast and pulled the vessel off into deep water. Whilst on the sands, the barque made a good deal of water, as the pumps were attended to every two hours, and on the request of the master the vessel immediately put back and arrived off town on the afternoon of the same day. The Surveyors carefully examined the barque outside, but could not detect any sign of strain or fatigue in any of the butts, seams, &c. They also examined the deck seams, waterways, and hatch-combings inside, but found no sign of strain or starting anywhere. The Surveyors observed that, from the Government diver's report, the metal was off the vessel's bottom in several places. Under those circumstances they were of opinion that it was necessary that the *Frans* should be docked for such repairs and strengthening as might, on an examination in dry dock, be found needful, and recommended accordingly. On the 6th February the barque was placed on the blocks in the Caledonia dry dock, Howrah, after having discharged and stored the whole of her cargo, and on the following day the Surveyors attended on board in order to inspect and report on the general state of that vessel, as also to advise such repairs as might be deemed expedient. They found the barque *Frans* lying fairly on the blocks in the dry dock. The metal was wrinkled to a great extent fore and aft, more especially at both ends, where the metal was very much wrinkled and puckered, showing that the vessel must have hung heavily on the sands on both ends. There were 3 sheets of metal torn off on the starboard bow and 2 off the port side of the fore foot. All the stern metal was chafed off, and nearly all the keel metal was chafed and torn away fore and aft. They further examined the caulking in several places on each side, and found them exceedingly slack, more especially about the garboard strakes and bilge. They therefore recommended, in order to place the *Frans* in the same good sea-going condition that she was previously in, that the metal be stripped and the bottom be cleaned down for examination; and further, that she be cradled, in order that the garboard strake might be thoroughly caulked. They also advised that the rudder be lifted and carefully examined, and that when all the work was finished another survey should be held in order to ascertain whether other defects, not then apparent, should present themselves. On the 17th February the barque was finally examined, when the Surveyors reported that the old metal was stripped off the bottom and thoroughly caulked with oakum and re-metalled over ordinary felt, with 1,350 sheets of new Munty's yellow metal sheathing; the stem plates renewed throughout with new yellow metal and nailed with new copper nails; the ship was cradled and the garboard seams thoroughly caulked; the rudder, which was unshipped for examination, was re-shipped, and the two lower brace bolts renewed with new metal bolts one size larger than the original; dovetail plates were taken out, and the holes enlarged and re-fastened with new metal bolts; one piece of false keel was renewed with teak 13′ × 14″ × 14″; the topsides caulked afresh and the pitch scraped off; one 16 cwt. bower anchor, 60 fathoms of $1\frac{7}{8}$ chain cable, one lead line and 120 fathoms of 3″ coir rope lost, whilst the vessel was on the sands, were all replaced. All the repairs had been carefully and efficiently executed, and the *Frans* was in every way entitled to retain her class 3/3 L. I. I. in Bureau Veritas. She had been afloat several days, and was reported tight, and was well supplied with chains, cables, anchors, two suits of sails, three boats and all necessary stores; she was strong, staunch and seaworthy, and was, in the Surveyor's opinion, to any part of the globe a first class insurance risk. Value of damage to the barque, ₹13,869; cargo, ₹2,936. No loss of life.

[A Departmental Committee of Inquiry was held in the office of he Port Officer, Calcutta, on the 31st January, to inquire into the cause which led to the grounding of the barque *Frans*. The Committee examined all the witnesses in this case, after which, it was cleared and they proceeded to draw up their report. The Committee were of opinion that the pilot failed in his duty in not having used his tow boat to cant the *Frans'* head into the channel on the wind falling—a practice always used with vessels of so small a tonnage, *viz.*, 356 tons—and that the pilot held on too long without having anchored the barque after passing Nurpur point. The Committee observed that the position of the grounding, as indicated by the bearings given, was not accepted, though taken both by the master of the vessel and the pilot, but no weight was placed on that error.]

The Port Officer recorded that the Committee blamed the pilot for not having endeavoured to tow the barque's head round when the wind fell so light as to cause the *Frans* to lose her steerage way and be no longer under command. It appeared that a native boat was at the pilot's disposal and in tow of the vessel. It was pointed out that with a small vessel, such as the *Frans,* it was the usual practice to use such a boat; also that he should have anchored on the wind falling light before getting into shallow water. The Port officer was not inclined to attach any serious blame to the pilot; he should undoubtedly have attempted to tow the barque with the boat when he found himsel becalmed, which might have prevented the accident. As to the pilot not having anchored before he shoaled his water, it seemed that he did not anticipate danger until the vessel shoaled, and it was a part of the river where it was not desirable to anchor provided it could have been avoided; and had the event shown that the pilot was wrong in not doing so, it could not be considered a serious error of judgment. Under the circumstances, the pilot's antecedents were to be considered, and it was found that since 1876 no accident, for which any blame was attributed to him, had occurred to vessels in his charge. It was suggested that the pilot should be reprimanded and cautioned.

The Lieutenant-Governor of Bengal remarked, that in view of the pilot's past good and careful service, His Honour accepted the recommendation and accordingly directed that the pilot be reprimanded and cautioned to be more careful in future.

24. The British Indian schooner KÁMAKSHAMA [of Coringa, 104 tons register, no official number], from Chittagong to Cochin, with a cargo of rice and paddy. On the 26th January the schooner in charge of the tindal passed the Fairway buoy Pámban pass, at night, and ran too far down towards the Great Dam, on seeing which the tindal anchored her. Early the next morning, when the pilot boarded her, there was neither room to wear nor stay, consequently he warped her out; but after getting underweigh at 1 P. M. in beating out, the schooner missed stays and took the East bank in the North Reef channel, Pámban pass (Gulf of Manár). Boats were at once sent off to lighten her, when, after two hours, she got off. No damage to the schooner. Value of damage to the cargo not reported. No loss of life. (The casualty was caused by the tindal in having anchored so close to the foul ground.)

25. The British iron screw steamer CHUSAN [of Greenock, 2,651 tons register, official number 87414], from Suez to Aden and Bombay, with a general cargo. It appeared that the *Chusan* was a straight stem steamer with no bowsprit, and was built in June 1884. She left London on the morning of the 8th January with a general cargo and about 50 passengers on board, bound to Bombay and on to China. She was properly equipped, and had on board the latest Admiralty charts of the Red sea, besides a large scale chart of Perim island; also the latest edition of the Red sea pilot. There were on board five compasses which were all in good order, and she steered by the compass on the top

of the wheel house; the compasses were tested daily by all the officers on watch as well as the master himself. The steamer steered very well. There was a Reynold's patent Odometer log on board. The *Chusan* arrived safely at Suez on the afternoon of the 22nd of the same month and left that port on the 24th. All went well with the steamer up to the 27th, when at 4-30 P.M. the course was altered to S. 10° E., magnetic (S. 17° E., true) in order to pass Mokhá, the steamer then being between Jebel Zukur and Abú Ail islands (Red sea) the steamer had been set to the eastward since noon, the current running to the eastward the whole of that day. The master stated that he continued on that course until about 5-50 P.M., when finding the current still setting to the eastward, he set the course S. 5° E., magnetic (S. 12° E., true). He verified his position at 6 P.M. by a four point bearing of Mushejjerah island. At 6 o'clock the vessel had run by the patent log a distance of 67 miles since noon, but the position of the steamer at that time did not quite agree with what the Odometer showed, there being a difference of from 2 to 3 miles. The master continued the course set at 5-50 P.M. until 9 P.M., and stated that he then took a cast of the deep-sea lead, but not finding any bottom at 48 fathoms, judged that would place him at least 13 miles off Mokhá, when he altered his course to S. 23° E., magnetic (S. 30° E., true), and continued on that course until 11-30 P.M.; the distance run between 9 P.M. and 11-30 P.M. by the Odometer being 27½ miles. The master then observed the Perim island light bearing S. 40° E., true, about 10° on the port bow, and stated that he expected to sight the light in that position. He then steered straight for the light S. 40° E., true, proceeding on that course until about seven minutes to 1 the next morning. He then altered the course to S. 60° E., magnetic (S. 65° E. true), when he observed the steamer to lose her way through the water, the leadsman at the same time giving 4 fathoms, shewing her to be on shore. He steered straight for the light, but at seven minutes to 1 A.M., the light was S. 43° E., true, about 3° on the port bow, showing that the vessel had been set to the westward. The bearing of Ava point was taken at five minutes to 1 A.M. by the master himself just as he altered the vessel's course. The master had been watching Ava point before this to see when it came on to that bearing, and that it did not get to the westward of that bearing. The master stated that he was studying the large scale chart of Perim island a quarter of an hour before going on the bridge. He had been on the bridge nearly the whole of that evening and night, and had only left the bridge to refresh his memory with the chart, when he returned about a quarter of an hour before the accident. There were one European and one native forward in the bows, and one native on the topgallant forecastle, on the look out at the time of the accident, and the second and third officers on the bridge; there was also a European quarter-master at the wheel and another in the chains. The second officer stated that he went on watch shortly after midnight on the morning of the 28th. He relieved the third officer and received the course S. 33° E. (which would have allowed 7° for westerly deviation, which the master stated was the deviation on that course S. 40 E.) the Perim island light as near as possible was right ahead, and the vessel's speed then was 11 knots, 54 revolutions, and the ports were all closed. It was blowing fresh at the time from the S.E., a moderate gale. The light kept ahead of the steamer as near as possible until the next course was set; that was at about seven minutes to 1 A.M., when the course was altered to S. 60° E., the light being 2½ points on the starboard bow after the course was changed. It was simultaneously with steadying the *Chusan* under her altered course that the casualty happened; at the time it was a bright moonlight morning; it was clear overhead and the stars were out, but it was slightly hazy on the horizon, there being a short chopping sea. The fifth officer deposed that the Perim island light was bearing right ahead just before he altered the steamer's course. One European quarter-

master alleged that he went to the wheel at midnight of the 27th, when he was given the course S. 33° E., magnetic (S. 40° E., true), and that the vessel continued on that course until twenty minutes to 1 o'clock on the following morning (28th), after which it was altered to S. 60° E. The steamer steered on that course for about ten minutes, when she went aground. The master stated that the vessel took the ground on the northern point of the shoal running out to the North of Perim island, in latitude 12° 41′ 0″ N., longitude 43° 23′ 30″ E., and the bearings when aground were Ava point S. 44° W., the Signal staff S. 16° W., the light-house S. 40° E., and the Oyster island S. 83° E., true, Small Straits (Red sea). That position was half a mile from the position the master believed himself to be in when he altered the course at seven minutes to 1 A.M. He stated that the night was not very clear, being hazy, as the Perim island light, which ought to have been visible 22 miles off, was only seen from a distance of 16 or 17 miles. Another European quarter-master said that he went into the port chains at about 12-30 o'clock on the morning of the 28th with a 10lb lead and hand line. He obtained soundings five or ten minutes before the vessel went ashore; the first was 7½ fathoms and then 7 fathoms; the last cast was 4 fathoms, after which the vessel grounded, there being no soundings between 7 and 4. The master positively stated that the leadsman did not really report bottom at 7½ fathoms until the highest point of Báb-el-Mandeb bore E. by S., the bearing on which he expected to get soundings. The soundings, therefore, were those he expected to find in the position he supposed himself to have been. The master steered the usual course he was in the habit of doing when going through the smaller channel. He was on deck the whole night, in order to see that the instructions he gave were carried out. At 7 minutes to 1 A.M. he gave orders to the man at the wheel direct, as he was standing by him at the top of the wheel house. The steamer was then being steered by steam, and the engines were going at the rate of 11 knots an hour from 11-30 P.M. on the 27th until the vessel grounded. On finding the *Chusan* ashore the master reversed the engines and took soundings round the vessel, when it was found that she was on shore nearly her whole length, the bottom consisting of sand mixed with broken dead coral. She was perfectly upright and made no water; the soundings at the stern showed 5 fathoms, gradually deepening to 7, about a ship's length off. The master then got anchors and hawsers on deck ready for use. At 3 A.M. the engines were stopped, in order to clear the condenser of sand, after which the master set all the square sails abaft, started all the fresh water in the forward tanks and pumped it out. After the steamer went ashore the pumps were sounded every half hour, when it was found that she made no water nor did she on her passage afterwards to Bombay. At daylight the Perim Coal Company had a tug and a lighter in attendance, and at the same time the steamship *Thames* of the same Company's fleet which was observed passing, and was signalled to for assistance, came to her rescue and anchored close to the *Chusan,* whereupon the master of the latter vessel sent a jolly boat for the purpose of passing a line to haul a messenger on board—a wire tow line—when it parted, and to save time the Perim Coal Company's steam-launch passed the messenger to the *Thames* from the *Chusan,* with which the launch succeeded in taking a 6″ wire tow line to the *Thames.* At about 7-30 A.M. the *Thames* commenced to tow, the *Chusan's* engines going full speed astern at the same time, but the master of the *Thames* observing the water had commenced to fall, desisted from towing until next high-water. In the meantime the master of the *Chusan* ordered lighters from shore in order to discharge dead weight into it, and also 40 coolies to discharge coals with a view to lighten the vessel. Subsequently the *Chusan* having been lightened by discharging some dead weight and jettisoning some 15 tons coals, the *Thames* succeeded in

towing her off the shoal at high-water at about 5-45 P.M. of the 28th. The steamer was aground for 18 hours. The *Chusan* then anchored, took in the cargo that had been discharged, and proceeded on her voyage, arriving at Aden on the morning of the 29th of the same month and at Bombay on the morning of the 4th of February. The vessel made no water after she came off the ground on her voyage to Aden or Bombay, and on examination at the latter port by divers, was found to have sustained no material damage. Slight damage to the cargo. No loss of life. (It was reported that the master miscalculated his distance from the beach; moonlight but cloudy with strong breeze from the eastward; the steamer stranded on a weather shore. Had the bearings of the Perim island light been taken frequently, especially as the vessel was going full speed at the time, the accident probably would not have occurred.)

[A Special Court of Inquiry was held in the Fort Police Court, Bombay, by the Chief Presidency Magistrate, on the 5th, 6th, 7th and 9th February, under section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances connected with the stranding of the above vessel off the island of Perim. The Court recorded that after having considered the evidence of those persons whose evidence appeared to have been material, on the 5th and 6th February, it seemed that there were sufficient grounds for framing charges against the master, charging him as follows:—That he, on the 28th of January, whilst master of the British steam-ship *Chusan,* and approaching the island of Perim, did commit a wrongful act in steering for the Perim island light on the course S. 40° E., and in going so close to the island at high speed to take a position a short mile from the shore and only half a mile from the shoal ground on the North side of the island of Perim by bearings of the extremes of that island before altering his course to the eastward. A copy of the statement upon which such charges were framed, and of the charge itself, were then handed to the master, and the Court adjourned for the trial of the charge until the 7th February. Whereupon the master replied that he did not admit the charge, and stated that it was not a wrongful act for a vessel under perfect command to go within half a mile of a well-known shoal at a speed of 11 knots when the course had only to be altered two points in order to keep clear of it. It had always been the practice, during the 20 years' experience he had had in the Peninsular and Oriental Steam Navigation Company's service, for all masters of steamers to pass through the Straits at the speed he was going. On the Court re-assembling on that day, it amended the charge framed. The Solicitor on behalf of the master thereupon objected to the addition of the words "it being a hazy night," on the ground that the evidence showed that it was a bright moonlight; that the Perim island light was visible at a distance of 17 miles, and that the second officer had said that it was clear overhead but slightly hazy on the horizon. A copy of the amended charge was handed by the Court to the master, and on the above-amended charge being read to the master, he replied that he denied the truth of the charge. He desired to state that the weather was not so hazy as to raise the faintest doubt in his mind that he did not see clearly the points of which he took the bearings. The witnesses for the prosecution were then called, and examined, and on conclusion of their evidence, the Court proceeded to consider their finding and order. From the evidence before the Court, it appeared that the master accounted for the *Chusan* going ashore in consequence of his having been unable to sight the extreme N.E. point of Perim island, and of his mistaking the slope of a hill in shore for it. He stated that the appearance of the N.E. extreme of Perim island at the time his vessel went ashore was undistinguishable on account of its resemblance to the curl of the water, which was white, in consequence of the strong breeze from the S.E. then prevailing amounting to a gale. The

moon being to the westward rendered the sand and the appearance of the water ill defined, and he mistook the slope of the hill for the point behind it. He stated that in steering through the Small Straits at night he had hitherto placed himself N.W. of the N.E. corner of the island, and from that point he shaped the same course as he did on that occasion; that he placed his position before steering that course by bearings of the extreme ends of the island. Ava point to the west and the N.E. extremity of the island of Perim; that on the present occasion he had a bearing of Ava point which bore S.W.; that he did not necessarily always put himself into that position, but on that occasion having seen lights in the channel which he could not define, he went as far towards the island as he considered he could do with safety in order to be on the right side of the channel in case of meeting steamers proceeding the other way; that if he had not seen those lights he would probably have starboarded his helm a little sooner than he did. He also stated, before going on the bridge, that he knew from previous observations of the chart that the bearings of the extremities of Perim island would have placed him in a position of safety, and that he could have safely approached the island until the N.E. extremity of it bore S.E. from him, and his reason for having used that bearing instead of a cross-bearing from the light was because it being one of the sub-cardinal points, and consequently most conspicuous on the compass card, it was easy to get bearings at night without the aid of a lantern, and before going on the bridge on that occasion he had again looked at the large scale chart of Perim island and assured himself that so long as the N.E. extreme of the island was not to the East of S.E. from him, he was in a position of safety. He also stated that he was aware that the Red sea Pilot recommended, when approaching the island of Perim, to bring the light to bear S.½E. before entering the Small Straits, and that his reason for not pursuing that course was, that on a former occasion, when using that course in a steamer in which he was the first officer, that vessel very nearly escaped a serious collision with another steamer passing in the opposite direction, and since that time he had always kept to the S.W. side of the channel in proceeding through, so as not to have to alter his course whilst in the narrows. He said that he had never gone through the Large Straits in his life, and that it was not usual for any steamer to pass through the Large Straits. The master stated that he considered it essential, for the safe navigation of the smaller channel from his recent experience, that there should be another light, and that it would be desirable to place it on the N.E. extreme of the island. The Court observed that a charge was made against the master, who afterwards called four witnesses for his defence. The master of the steam-ship *Clan Cameron,* who had six years' experience in steamers, and who had frequently been down the Red sea for the past four years, stated that in going towards Perim island from Mokhá he steered a course to make the light on a bearing of about S.45° E., true, and having done so, steered direct for the light until he could see the ends of the Perim island and had come to a position, *viz.*, Obstruction point bearing S. 45° E., and Ava point S.45°W., true; that after having seen the extremes of the island so as to be able to take bearings of them, he took no bearings of the light, as it would have been of no use; that he followed that course as he very nearly had a collision in going through the Small Straits with a steamer proceeding the other way, as vessels coming in and going out of the Red sea passed as close to Perim island as they safely could. He also said that if he took bearings of the light it would have been prudent to have consulted the chart, and that he could not fix his position accurately by bearings of the light without consulting it; that the channel was as nearly as possible S. 60° E., and that if he took the course S. 26° E., recommended by the Red sea Pilot, his vessel would undoubtedly have crossed the track of in-coming steamers. If one steamer was steering S. 26° E., and the in-coming vessel was

steering N. 26° W., they would not be crossing, but both vessels would be placed near the dangers on both sides if they were steering S. 60° E.; that it would be more dangerous to have the starboard side exposed to an in-coming steamer than to meet her end on; that he considered it perfectly prudent on a hazy night to approach as close as half a mile to the edge of the shoal on the North side of the island of Perim steaming 11 knots, and trusting solely to being able to get an exact bearing of the N.E. point of that island on such a night, because Perim light could be seen 15 miles off; that the distance from the 10 fathoms line of soundings to the edge of the shoal on the North of Perim island on a bearing of the light S. 40° E., true, was three-fourths of a mile. On that bearing, if soundings by the hand line had been obtained in 7½ fathoms, he would have considered it dangerous to have continued on that course for some ten minutes steaming 11 knots, and he would have altered his course to the eastward at once after having obtained those soundings. He also thought, most decidedly for the safety of the passage through the Small Straits at night, that there should be a light on Obstruction point. The master of the Anchor line steamer *Britannia,* who had been five years in charge of steamers, and in the habit of passing the Small Straits of Perim for the last five years, stated that he generally went down the Red sea with the Perim island light bearing S. by E. or S.S.E., and that when he came near enough to the island to clearly distinguish the extremes, he always took bearings of those extremes and threw off the light; that he altered his course to go through the straits when he got near enough to get a cross-bearing. Having the extremities of the island as his bearings, he would pay no attention to soundings taken; if he was steering for the island with the light bearing S. 40° E., true, he would not bring it on a more southerly bearing until he obtained his position by the bearings of the extremes of the island, that is, if he had made the light bearing S. 40° E., and that he had done so on a dark night many times; that he would not have considered it safe on a hazy night to have approached so close as half a mile from the edge of the shoal on the North side of Perim island and steaming 11 knots, and trusting solely to being able to get an exact bearing of the N.E. point; that he would have considered it dangerous on a bearing of the light S. 40° E., true, when soundings had been obtained in 7½ fathoms to have continued on that course steaming 11 knots; that probably on that bearing, on obtaining those soundings, he would have altered his course to the eastward almost at once. In approaching the light on a S. ½ E., or S. by E., or S.S.E. bearing, he would have steered straight down for Perim island and gone close to it until he got his cross-bearings of the two extreme points; if not, he might see Oyster island, and taking a bearing of that and steer by that until he opened out the Strait. If he were to the eastward, he would have taken bearings of Oyster island and the light. The master of the *Britannia's* usual course in passing through the channel going to the South was about S.E. after he got down to the Strait. He maintained that the light at Perim was not in a good place on the island, because it was too far inland to form a good bearing, and that, in his opinion, it was desirable to have another light on Obstruction point, as there was a difficulty in picking up Obstruction point whether the weather was not clear, as that point was not very high. The master of the steam-ship *Abana,* who had been in charge of steam-ships since 1873, stated that he had been through the narrow Straits of Perim several times, and that he considered the course S. 40° E., true, to the N.E. point of Perim island a safe one to steer, in proceeding down the Red sea before reaching the position of Ava point bearing S. 44° W., and he would have trusted to the bearings of the land entirely if he had seen them distinctly for fixing his position before going to the eastward, and should have paid no attention to the soundings; that when he saw the light 17 miles off he would have considered it a hazy night,

and that if it was not a hazy night, the light would have been seen over 20 miles; that he had never made the Small Straits at night from the North; that if he made the light, at night, S.E., he would have steered for it a little on the starboard bow, and that if he had been going through the Strait, and was steering for Perim island with the light ahead bearing S. 40° E., true, he would have brought it on a more southerly bearing when he supposed himself to be within 2 miles of the island; and afterwards said, that if he were steering for Perim island with the light ahead bearing S. 40° E., true, he would not have brought it on a more southerly bearing when within 2 miles of Perim island. He would have continued on that course until he could have seen the two points of the island distinctly, and he should then have hauled to the eastward; that on a hazy night he considered it would have been safe to have approached as close as half a mile to the shoal to the North of Perim island, steaming 11 knots, if he were able to get an exact bearing of the N.E. point, or if he were sure of the points of the land. The Court, after a careful consideration of the evidence, were of opinion that the stranding of the *Chusan* on the shoal extending to the North of the island of Perim was owing to the master having mistaken the shoulder of the hill, on which the light-house stood, for the N.E. point of Perim island, in consequence of the hazy appearance of the horizon and the moon having shone brightly on the sand, which caused the sand to have the appearance of water, and in not having altered his course, to the eastward sooner. The Court thought that if the master had laid down his bearing of the Perim island light S. 40° E., true, on his chart, when a few miles distant from the island, he must at once have seen that to have continued on that course until Ava point bore S.W. of him must have put him on shore, and he had ample time to lay that bearing down before having approached the danger. If he had done so, it must at once have showed him that he could not have reached the position he intended to take before altering his course (N.E. extreme of the island S.E., and Ava point S.W.), also on that bearing if he obtained soundings under 10 fathoms he should at once have altered his course to the eastward to avoid the danger. From the evidence it appeared to have been a hazy night, Perim island light was only visible about 16 or 17 miles, and the Court considered that it was a very dangerous course for the master to adopt to proceed, at the speed he was going, 11 knots, and on the course he was steering S. 40° E., true (Perim island light being on that bearing), to have taken a position as he intended to have done a short mile from the shore and only about half a mile from the shoal ground on the North side of Perim island by bearings of the extremes of the island before having altered his course to the eastward. The extremes of the island, and more particularly the N.E. extreme, sloped gradually down from the centre of the island, and were, therefore, difficult to define clearly even under most favourable conditions, but more especially so on a hazy night, for a steamer going at the high speed of 11 knots. The Court considered that the Perim island light should have been brought to bear more to the southward than S. 40° E., true, much sooner and at a safer distance from the reef than half a mile, and a mid-channel course steered when entering the Small Straits, because in such a course there would have been less danger of collision in meeting steamers proceeding into the Red sea, than if the out-going vessel steered a more easterly course, as in so steering such a steamer would be in the position of a crossing vessel as contemplated by Article 16 of the Rules of the Road. The Court observed that the Red sea Pilot for 1883 recommended that vessels when within 2 miles of Perim island, coming from the northward and intending to go through the Small Straits at night, should bring Perim island light to bear S. ½ E., in order to clear the shoal ground to the northward of the island, and the Court fully agreed with that authority. The Court were of opinion that the master was deserving of censure for not laying down the bearing of Perim island light on

his chart before approaching the danger, and for having trusted to fix his position exactly by the extremes of the island on the early morning of the 28th of January. In conclusion, the Court having taken into consideration that a large number of vessels constantly passed through the Small Straits of Perim carrying numberless passengers and valuable cargoes, and that several steamers, besides the *Chusan* had grounded off Perim island when passing through the Straits, in consequence of the great difficulty of estimating their distance correctly from the island at night, strongly recommended, for the safe navigation of the Straits, that a light be placed on Obstruction point, showing coloured rays over the shoal ground on the North side of the island, and also over the Azalea rock, or a white light obscured over the dangers to the North and the Azalea rock to the South. The Court returned to the master his certificate but censured him for his negligence in not having laid down the bearing of Perim island light on his chart before approaching the danger, and for having trusted to fix his position exactly by the extremes of the island on the early morning of 28th January.]

The Governor of Bombay observed that, with reference to the above recommendation, the Secretary of State would be requested to inform the Board of Trade that a light-house had already been constructed on Obstruction point in which a light would be exhibited very shortly, and that, with regard to the character of the light to be shown, it had been decided, under the advice of the Elder Brethren of the Trinity House, to provide a fourth order dioptric light in lieu of the sixth order originally indented for, the distinctive character of the light being obtained by means of occultations instead of by revolutions.

26. The Swedish wooden barque FRANS [of Sundsvall, 356 tons register, no official number], from Calcutta to Port Natal, with a cargo of rice. The barque, on the 22nd January, proceeded down the Hooghly river in charge of a pilot and without steam, but grounded on the 24th off Hooghly point. Efforts were made to get her off, but unsuccessfully. Finally, on the 28th, at about 10-45 A. M., the pilot, for the purpose of floating the barque, was compelled to slip a bower anchor and 60 fathoms of chain. The lost articles, it was reported, was not in the way of vessels navigating the channel in that vicinity, but it lay in a direct line N. W. ½ N. of the flat buoy off Nurpur point. The pilot, at the request of the master, put back to town. No damage to the barque or cargo. The anchor and chain lost by the *Frans* were not recovered, but she was supplied with new articles at Calcutta at a cost of ₹633. No loss of life. (The casualty was unavoidable.)

27. The British iron screw steamer ACCOMAC [of Liverpool, 1,629 tons register, official number 86294], from Liverpool to Bombay, with a cargo of steel rails, &c. All went well with the steamer up to the 29th January. At noon of that day, on proceeding down the Red sea, she passed High island, North of Jebel Zukur at a distance of 1½ miles, and the master then set the course S. 15° E., true, and kept on that course till 9 P.M., when he altered the course to S. 26° E., true, continuing on that course till the vessel grounded at 10 P.M. At the time of the accident the steamer's speed was reckoned to be 7 knots an hour; the weather was fine and the night was a little hazy, the wind was from S.S.E., and it was blowing strong, with a slight swell on sea about the same direction. At 10 o'clock that night, owing to a strong current setting the vessel to the westward, the steamer grounded on the 3-fathom patch, nearly 5 miles West of Rás Mákawwa near Mokhá, in latitude 12° 57′ N., longitude 43° 03′ E., Red sea. The vessel got off after having been aground for 15 minutes. On arrival at Bombay on the 7th she was surveyed and the hull was found to have been uninjured. Value of damage to the *Accomac,* ₹100. No damage to the cargo. No loss of life. (The Port Officer, Bombay, stated that the accident was due to an extraordinary strong current having set the vessel

unexpectedly about 6 miles to the westward of her course; and there being no material damage done, the vessel being on shore for only 15 minutes, no Court of Inquiry was held in this case.)

28. The British iron screw steamer PHAROS [of Liverpool, 1,449 tons register, official number 81385], from Port Said to Kurrachee in water ballast. It seemed that the steamer left Port Said on the 22nd and Suez on the 23rd January in water ballast after which all went well with the vessel up to the 28th of that same month when the master steered different courses to go between Jebel Zukur and Abú Ail islands and passed midway between high island and Abú Ail at 2-50 P.M. of the 28th. At 3-30 P.M., he passed the shoal to the East of Jebel Zukur, and then set the course S. by E. ¼ E., and kept on that course till 5-30 P.M., when he altered it to S. by E., by the standard compass, continuing on that course until 6 o'clock. At 6 P.M. the course was again altered to S ¾ E. The master stated that he did so because he thought from the appearance of the land that the vessel was getting a little set to the eastward. He passed Mushejjerah island at 6-45 P.M., distant about 4 miles, to the West. He took a four point bearing of Mushejjerah island and kept on that course until 9 o'clock, when he altered it to S. by E. From noon to 7 P.M. of that day the steamer's speed was reckoned to have been 5 or 5½ knots an hour, and from 7 P.M. to midnight the speed increased from 6½ to 7 knots. At 10 o'clock that night the *Pharos* passed a British India Steam Navigation Company's steamer bound South nearly ¾ of a mile to the westward, and at 11 P.M. passed a two-funnelled steamer going North about half a mile to the eastward. The master of the *Pharos* continued the course S. by E. till 1 o'clock the next morning (the 29th), intending to make Perim island light ahead or a little on the starboard bow, and expected to see it at, or near, 4 A.M. At 1 A.M. the master altered the course to S. by E., ½ E., in order to keep the regular course in the middle of the Red sea as nearly as possible. He kept that course till 2 A.M., and altered it for the same reason to S.S.E., and continued on that course till 3 A.M., when he altered it again to S.S.E. ½ E., because he thought that the vessel would feel the westerly set which he knew existed there and was very irregular. At 3-20 A.M. the master took an altitude of the North star which gave 13° N. latitude, and he continued on the course S.S.E. ½ E., till 4-15 A.M., when he altered it to S.E. by S.; and the steamer *Pharos* stranded at 5-10 A.M. of the 29th January. The vessel struck the ground abaft the centre of her hull on the Sintiyar reefs about 5 miles to the East of Rás Sintiyar, in latitude 12° 53′ N. longitude 43° 03′ E. (Red sea). A few minutes before the casualty occurred the master imagined that he saw white water on the starboard beam, and gave an order to starboard the helm, but steadied it almost immediately, as he thought he was mistaken. The deviations on the courses steered that night did not vary much, being from 1° to 1½°. The master alleged that he altered the course at 4-15 A.M. because he did not see the light, and on account of the westerly current. The wind was right ahead, and it was blowing strong, with a high sea from about S.S.E., he had no sails set that night nor during the preceding day. There was a man on the look-out on the forecastle, and the master was on deck up and down most of the night, leaving the deck now and again for a few minutes to examine the chart. He laid down the vessel's position on the chart each time he altered the course from the afternoon of the 28th up to the time of the accident. When the vessel grounded the master was on the flying bridge with the first officer, and a quarter-master was at the wheel. The *Pharos* was going at the rate of 7 knots when the accident happened; and her propeller was barely immersed, being some 20 inches out of the water. The governor was in gear during the 28th, and on the morning of the 29th, as the engines had been inclined to race, it was the darkest hour of the night. When

the vessel took the ground the master stated that under his orders the engines were stopped and reversed full speed, but the steamer did move. A boat was then lowered to sound round the vessel, when 12′ were found close to the starboard bow, 10′ on the starboard side of the bridge, 9′ opposite No. 4 hatch on the starboard side; and 18′ on the starboard quarter. On the port bow 15′, on the port side of the bridge 18′, opposite No. 4 hatch 17′, and on the port-quarter 21′. The crew commenced to pump the ballast tanks out, when in the meanwhile a kedge anchor was run out on the port-quarter, there being too much sea to carry out a larger anchor. At 8-30 A.M. the engines, which were going full speed astern, were stopped as the water was found to be falling; at noon there being less sea a larger anchor was carried out on the port-quarter with great difficulty. It was then blowing a moderate S.S.E. gale with a high sea. At 5 P.M., the water having risen the men hove away on the anchor and the engines went full speed astern. The anchor came home, but it was carried out again, and at 6-17 P.M., the steamer began to move off the reefs. At this moment a life-boat (with the second officer and 5 men in her) was broadside on to the back wash that was coming from the propeller, and being made fast with two ropes which could not be let go as they were jammed, the men in her called out to stop the steamer as the boat was in danger of being capsized. On the master seeing that the boat was in danger immediately stopped the engines and went ahead for the purpose of taking the way off the vessel and thus save the boat and the crew. When the vessel's way was stopped she took the ground again, the wind and the current forcing her on to the reefs. At about 6-30 P.M., it was found that No. 1 hold was filling rapidly with water, and the other holds were reported as being tight. Shortly afterwards the *Pharos* took a list of about 14° to port, and the water having fallen, nothing more was done on that day. On the following day (the 30th) the steamer in the same position, and blowing a S.E. gale, with a heavy sea, coals were thrown overboard in order to lighten the vessel, and when it was high-water the engines were put full speed astern, and distress signals for assistance were fired, but without avail. On the 31st there was a moderate S.E. gale with a high sea, and the vessel was still in the same position, but she had bumped heavily during the night. An anchor was then run out on the port-quarter, and at high-water the engines went full speed astern, but without the steamer moving. Distress signals were again fired, and a native buggalow came alongside at about 8 A.M., when the master sent the third officer in it to 'Asab (which was situated 20 miles to the N.W. of the position where the vessel grounded) for assistance. The Austrian Lloyds' steamer *Juno* at about that time bore down towards the stranded vessel, and the master of the *Pharos* sent a telegram by her to Aden to inform the owners of the disaster. At noon of the 31st the steam-ship *Vedetta,* an Italian gun-boat, proceeded towards the wrecked vessel, bringing back the third officer whom they had met in the native buggalow going to 'Asab. The *Vedetta* lent two divers, who reported that a plate was started on the port side forward. A hawser was then passed from the *Vedetta* and whilst she towed, the *Pharos* went full speed astern, but she did not move. On the 1st February the *Vedetta* again unsuccessfully attempted to tow off the stranded vessel. About 60 or 70 natives *(Dankalis),* some from the shore and others from boats, went on board, having knives with them. The master of the *Pharos* consulted with his officers and crew, and as nothing could then be done, they decided upon leaving the vessel. Thereupon the master of the *Vedetta* advised that arrangements should be made with the natives to protect the stranded vessel, during the absence of the master and the crew, from the *Dankalis* who were on board in large numbers, and an arrangement was come to with the chief of the natives through the master of the *Vedetta;* ₹4,000 was the sum to be given to the chief. The crew then wished to leave the vessel, as

they said that they were afraid of their lives on account of the natives. The master, officers, and the crew then went aboard the *Vedetta,* which vessel started for Perim (which was 28 miles to the S.E. of the spot where the accident occurred). The master said that it was his intention to return to the steamer with assistance—divers or tugs—from Perim, but whilst on their way they met the Perim Coal Company's steam-tug *Midge* with the Manager on board (who was also Lloyds' Agent on that island). Considering, therefore, that the tug would be of assistance, the master, the officers, and eight of the crew returned, whilst the remainder of the men, 24 in number, refused to do so. The master stated that when they got back on the 2nd February at 7 A.M., they found the steamer aground in exactly the same position, and nothing had been touched by the natives. The master then left his officers and men on board and proceeded with Lloyds' Agent in the *Midge* to 'Asab for further assistance, where it was found that no help could be got, as an Italian gun-boat was under repairs, and could not spare any of her men. They then went to Bëilul (which was situated 40 miles to the N.W. of the position where the casualty happened), and obtained two divers from the Italian man-of-war *Castel Fidardo* and returned to the *Pharos* on the 3rd. The divers set to work, and found a hole in the second line of the plates from the keel in No. 1 hold just forward of the ballast tanks on the port side. It was reported that No. 1 hold in the fore peak of the vessel was full of water, but that she was dry aft from No. 2 bulkhead; that she was not strained, but was lying quiet, and that if the weather continued favourable she would probably get off when the tide lifted. After two or three days the divers stopped the hole inside by an iron case with cement work, but not without difficulty and danger, as she had then a strong list of $15\frac{1}{2}^{\circ}$ to port and was in imminent danger; fortunately the steamer remained during that time in the same position. Two bower anchors were then run out—one forward and the other aft; the vessel was making no water in any other hold except No. 1. The ground being composed of coral, the *Pharos* hung forward, having a rock through her bottom. On the 5th there were 13′ of water in the fore peak and in the fore compartment, the leak being abaft the collision bulkhead. On the 7th the leak having been temporarily patched up, all the available pumps were put on the hold, and the tide having risen higher than usual that day, both hawsers were hove on and the engines put full speed astern, when the *Pharos* began to move off the reefs. At 6 P.M. she successfully floated and was backed into $6\frac{1}{2}$ fathoms of water where she was safely anchored. All the holds and the ballast tanks were then sounded, and all, with the exception of No. 1 hold, having been found tight, all the pumps were kept going, and at 8 o'clock on the night of the 7th the anchor being weighed, the *Pharos* proceeded slowly towards Perim, as there were fresh head winds and some sea. She reached and anchored in the harbour of Perim at 5 o'clock on the following morning. The portion of the crew (24 men) that had gone to Perim in the *Vedetta*, and had been discharged there, refused to proceed aboard until ordered to do so by the Magistrate there. The *Pharos* left Perim on the 16th for Bombay for survey and repairs, and arrived there on the 24th. An Engineer Surveyor, together with Lloyds' Surveyor, proceeded on board the steam-ship *Pharos* on the 27th, lying at the Peninsular and Oriental Steam Navigation Company's dry dock, Mazagáon, for the purpose of ascertaining the extent of the damage done consequent on the grounding of that vessel in the Red sea. They made a careful examination of the hull inside and out, as far as could be seen, and stated that the steamer was dry, properly shored and cleaned down, ready for inspection; on the port side one keel plate or garboard strake 12′. 2″ × 3′. 3″ × $\frac{5}{8}$″ was broken some 30′ from the stem; one plate immediately above the latter was broken, of nearly the same dimensions; another plate above this was broken, and another in line with this last very much buckled and

bent; one plate immediately above the latter, also very much buckled and bent, to be cut out; two frames broken in connexion with those plates and several others, to be examined when the plates were taken off, as they were likely to be out of form from the appearance of the plate on one side; 43 butts and 24′ of seams to be caulked; 42 rivets and nearly 20 others to be renewed in various parts of the hull besides those required by the new plate, and defective ones to be taken out. On the starboard side one keel plate or garboard strake was very much bulged and buckled about 30′ from the stern, the dimensions being 12′ × 3′.3″ × $\frac{5}{8}$″, to be cut and the bulges taken out, and, if necessary, a new plate fitted; one plate above the latter very badly bulged, to be taken out and straightened, or a new one fitted of the same size; and a plate immediately above this cracked, to be fitted with a new plate of the same size. There were several plates apparently out of shape, but cannot be closely examined until the plates be taken off. About 200 keel rivets and 1,300 plate rivets, to be renewed; nearly 120 rivets, to be caulked or renewed as necessary in various parts of the hull and keel; 51 butts and 30′ of seams, all leaking more or less, to be caulked on the starboard side; a few repairs to be done to the ballast tanks, the defects caused by the ship grounding, but which the Surveyors could not get at until the plates were removed; a large portion of the cement cracked and more or less damaged, to be renewed. On the 6th March the steamer was finally surveyed in order to report whether the repairs had been satisfactorily executed. The Surveyors reported that 3$\frac{1}{2}$ plates were renewed; 4 plates badly bulged had been taken out and straightened, some 45′ of 5″ × 3″ angle iron fitted; replaced 5 broken fames on port side; 6′ of 3$\frac{1}{2}$″ × 3$\frac{1}{2}$″ angle iron fitted on to ballast tank side; 94 butt straps caulked, about 50′ of seaming caulked; 1,150 new rivets put in shell; 155 new rivets put in keel and sternpost; 125 rivets in keel and sternpost caulked; and 150 rivets in shell caulked. They were of opinion that the execution of the repairs had been most efficient and expeditious and in accordance with their instructions. The ballast tank had been repaired where necessary, and a new connecting pipe fitted between it and the collision bulkhead; the sounding rod socket pipes had been repaired and renewed where necessary, and all put in good working order; the donkey suction pipe to ballast tank repaired, and placed in good working order; all the loose cement were taken out and renewed where required; the iron ladder in the hold, which was broken, had been taken out and thoroughly repaired. The Surveyors reported that they were of opinion that the steam-ship *Pharos* was in every way seaworthy, well found, and equipped; the hull and machinery were in good order and condition, and she was fit to carry dry and perishable cargo to any part of the world. Value of damage to the *Pharos*, ₹11,990. No cargo on board. No loss of life.

[A Marine Court of Inquiry was held in the Fort Police Court, Bombay, by the Chief Presidency Magistrate, on the 2nd, 3rd, 4th, 6th, 9th, and 11th March, under the provisions of sections 7 and 9 of Act V of 1883 (Indian Merchant Shipping Act), for the purpose of investigating the circumstances connected with the stranding of the above vessel in the Red sea. The Court recorded that, on the 2nd March, it appeared that this investigation was likely to involve the consideration of the question as to the cancellation or suspension of one or more of the certificates, it was necessary for the Court, under section 13 of the above Act, to appoint two assessors, when the Court adjourned for that purpose until the next day (the 3rd), when they appointed, as their assessors, for the purpose of this investigation, two persons having experience in the Merchant Service—one a Marine Surveyor, but lately a master in the British India Steam Navigation Company's service, who had been in charge of steamships for ten years, and the other, a master of a steam-ship. The statement of the case upon which this investigation had been directed were then read out to

the master, and the first and second officers. The witnesses for the prosecution were then called, sworn, and examined, and on the conclusion of their evidence it appeared to the Court that there were sufficient grounds for framing a charge against the master of the steamer *Pharos*. The Court thereupon, on the 6th, framed a charge against the master, charging him as follows:—"That you, on the 28th day of January, whilst in charge of the steamer *Pharos*, and proceeding down the Red sea, did commit a wrongful act or default, in that you, after passing Mokhá, did keep a course too much to the westward, there being a probability that you would meet a strong N.W. set on the side of the sea to which you were keeping, and be placed in close proximity to the reefs off Rás Makawwa; 2ndly, that you, on the 28th day of January aforesaid, whilst in charge of the said *Pharos*, and proceeding down the Red sea, did commit a wrongful act or default in neglecting to exercise proper care in ascertaining the speed of the vessel by the hand log and the patent log which you had with you during the night of the aforesaid date." A copy of the statement of the grounds upon which such charges were framed, and of the charge itself, were then handed to the master, who stated that he denied the truth of those charges. He said that, having heard the whole of the evidence taken in this investigation, he wished to say nothing with respect to those charges, except that he thought he was steering sufficiently westward to keep clear of the reefs on the western side of the Red sea. The Court adjourned till the 9th to enable the master to proceed with his defence. The master thereupon asked to be allowed to read a written statement from the vessel's log, and on permission being given, he did so; and he also called two witnesses for his defence—the masters of the steam-ships *River Indus* and *Aspatria*. The Court observed that from the evidence it appeared that there were on board a complete set of charts of the Red sea corrected up to March 1883, and an edition of the Red sea Pilot. There were 4 compasses and 2 chronometers on board, and they were all in good order. The course was set by the standard compass which was corrected at every opportunity by Macgregor's Palinurus which was in constant use. The vessel was steered from the flying bridge by steam; and she steered well. There were 4 boats which were properly equipped. She had on board 3 bower anchors and a spare anchor, all about the same size, together with a stream anchor and 3 kedges. There was a Walker's patent harpoon log on board and a hand log which was generally used; also a Basnett's patent lead sounding machine; the reel and line were fixed on the taffrail and the lead was in a cabin close by. The master stated that from 6-45 P.M. to 9 P.M. on the 28th January the course of the steamer *Pharos* was S. $\frac{3}{4}$ E., and the distance she made was $9\frac{1}{2}$ miles, and he allowed about a knot an hour for the current; from 9 P.M. to 1 A.M. of the 29th the course was S. by E., and the distance run 24 miles, but the vessel having then increased her speed the master allowed her 6 knots an hour, having taken off one knot an hour for the current; from 1 A.M. to 2 A.M. the course was S. by E. $\frac{1}{2}$ E., and the master allowed 6 miles on that course, having taken off 1 mile for the current; from 2 A.M. to 3 A.M. the course was S.S.E., and he allowed the same 6 miles and 1 mile for the current; from 3 A.M. to 4 A.M. the course was S.S.E. $\frac{1}{2}$ E., and he allowed $7\frac{1}{2}$ miles and $1\frac{1}{4}$ knots for the current; from 4-15 A.M. up to the time of the casualty the course was S. E. by S. and the distance he made was 6 miles, allowing about a knot for the current. After the steamer grounded on the coral reefs every effort was made, with the assistance of steam, anchors and sails, to get the vessel off and were nearly successful, but, as the master stated, owing to the necessity of stopping the engines to prevent a life-boat (with the second officer and five of the crew) which was sounding round the vessel being capsized, she grounded again. The Italian man-of-war *Vedetta* attempted on two occasions to tow the stranded vessel off, but failed to do so, and being bound to Perim on special

duty had to leave, and the crew of the *Pharos* being alarmed at the idea of being left alone with a large number of natives around who had been attracted to the vessel, left also, the master and officers being reluctantly compelled to follow. On their way to Perim the tug steamer *Midge*, with Lloyds' Agent on board, was met, and the master of the *Pharos*, together with the officers and 8 men, returned in the tug to the ship which was found in the same condition as when left. At 6 P.M., on the 7th February, the steamer finally came off owing to the unusually high tide, also to the indefatigable exertions made by the divers to stop the leak and to the water having been pumped out of the fore hold by the crew. The *Pharos* then proceeded to Perim, when her crew were with some difficulty induced to continue the voyage to Bombay. All the witnesses called accounted for the casualty to a strong westerly current prevailing at the point where the vessel grounded. The master stated that he allowed a little for the westerly set, it being a quarter of a point on some of the courses. He did not attempt to check the longitude in any way after half past 7 o'clock that night when Great Hánish island was abeam. He expected to meet a current setting to the northward, but did not expect to meet it until about 1 or 2 o'clock on the morning of the 29th. Not having seen Perim island light at the time expected, he merely thought that the current was stronger than he allowed for, and that the steamer was not so far down the Red sea as he considered she was. The master further stated that he had a Walker's patent harpoon log on board, which was set at noon of the 28th. It was not registering very well, and the master considered it must have been out of order, as it did not agree very well with the vessel's runs by the land, for it sometimes gave an excess, and was sometimes under the run. The master reckoned the steamer's speed by the hand log which he gave orders to heave every two hours. To the best of his knowledge that order was carried out, and he obtained the rate from the officers of the watch—the third, second, or the first. The first officer stated that his watch had been from 8 to 12 P.M., on the night of the 28th, and that the log had been hove once during that watch by a quartermaster. He believed that the quartermaster came on the deck and reported 7 knots to him. The first officer alleged that the log, as a rule, used to be hove twice in a watch; that the patent log was invariably used; that it was used on the 28th when it was showing over; that the quartermasters hauled it in whenever required, always on passing headlands and invariably at noon; that it was last hauled in before the accident at noon on the 28th; that, as a rule, the patent log showed too great a distance; and that he could not say how it had run whilst going down the Red sea, as he had kept no comparison. The third officer swore that in his watch the previous night the log was not hove; that there was only one quartermaster and himself on deck; that he used mostly to heave the log himself when it was hove; that he did not remember the log being hove at half past 11 P.M.; that he did not think that the log could have been hove without his knowledge; and that the rule was to heave the log every two hours, as those were the master's orders. The second officer positively stated that the log was hove; that at half past 3 A.M. on the 29th the hand log being hove 7 knots were reported to him by the quartermaster; that the log was only hove once during that watch; and that the patent log was not looked at. The four quartermasters were called, and they all alleged that they did not heave the log during that night. They also said that when all hands were at work during the day they did not heave the log at night, because there was no one to heave it, also because they received no orders on the night in question to heave it. The master was of opinion that the cause of the steamer going ashore was an unusually strong westerly set. The Court observed that charges were framed against the master, and he called two witnesses for his defence. The master of the steam-ship.

River Indus, who had been in charge of steam-ships for the last five years, stated that, in his opinion, the courses steered by the master of the *Pharos* were perfectly safe ones; that about the 10th of February he had experienced an unusual set to the westward; that he would himself have steered two courses, *viz.*—taking Abú Ail islands as his departure, he would have steered S. 20° E., true, 51 miles, to a spot 8 miles off Mokhá; Mokhá would then bear abeam, and his next course would have been S. 28° E., true, 39 miles, which would have placed him 1 mile to the North of the entrance to the Small Straits of Perim, thus making no allowance for any current. And the master of the steam-ship *Aspatria*, who had been 15 years in charge of steamers and been 35 years at sea, stated that he thought the courses laid down by the master of the *Pharos* were safe and proper ones to be steered in that part of the Red sea; that after passing Abú Ail islands he steered S.S.E., true, till about 5 miles from Mokhá, passing Mokhá from 6 to 8 miles; and that he then steered S. E. by S., true, until he sighted Perim island light. After a careful consideration of the evidence, the Court were of opinion that the stranding of the *Pharos* on the Sintiyar reefs on the early morning of the 29th of January was caused by the master having steered so much to the southward after having passed Mokhá at about 12 miles distant, and having encountered a strong N.W. set and not having made a sufficient allowance for it. The Court considered that the master after having passed Mokhá at that distance should have steered a direct course for the island of Perim, there being no dangers off the Arabian shore. The Court observed that it was probable, from the evidence given by the master of the steamer *River Indus*, that his vessel and one or two others were, about the same time as the *Pharos*, set to the westward in the same vicinity, and that on the night in question a more than unusually strong current might have been running to the N.W. Had the master made use of the patent sounding machine he had on board, which he could easily have done without stopping his vessel, it would have enabled him to have discovered whether such a westerly set existed, and also his dangerous position. Although the evidence was slightly conflicting with regard to the heaving of the hand log on the night of the 28th and the morning of the 29th, still in the mind of the Court there was no doubt that the log was not hove at all during that time, and that the speed of the steamer was not checked. The Court recorded that one of the assessors was of opinion that the primary cause of the stranding was due to an unusually strong N.W. current; the master appeared to have expected a set to the N.W. for which he made an allowance in his calculations, and the distance run he also verified by the altitude of the Pole star, and the latitude thereby obtained agreed with that shown by dead reckoning. He said that great stress was laid by the witnesses on the fact that there was no one to heave the hand log at night, the crew being asleep, with the exception of the look-out man and the quartermaster. The assessors considered that the master's presence on the bridge gave the officers the opportunity to leave the bridge when necessary to heave the log. The patent log being out of order, should have made them doubly careful in ascertaining the vessel's speed and in reporting the distances run, instead of which, they seemed to have reported and recorded the distances taken by guess, no reference having been made to the speed given by the engines or the patent log. In the assessor's opinion the *Pharos* must have been West of her assumed position when her last departure was taken (Mushejjerah island). The compasses seemed to have been so placed that no cross or four point bearings could have been accurately taken to get a good departure distance when passing the islands of Jebel Zukur and Mushejjerah. The master appeared to have been almost constantly on the bridge alive to all the dangers he was placed in, and, in the assessor's opinion, he should have hauled the vessel at once to the eastward, instead of doing so at intervals, without checking his position

by a cast of the lead. The assessor stated that his experience in that vicinity was that a strong N.W. current existed there, more so as one approached the West side of the Red sea, and that its rate varied from time to time according to the strength of the wind that prevailed. The other assessor was of opinion that the stranding was due to an unusually strong current setting to the N.W. on the night in question and to the lax manner in which the vessel's speed was reckoned. Great stress was laid by some of the witnesses on the fact that there were no hands on deck to heave the log, but as the master was present on the bridge the whole night the assessor considered that the officers could have carried out their standing orders *(viz.*, to heave the log every two hours, or, at any rate, at the relief of the watches), instead of which they seemed to have guessed the speed and reported, and recorded accordingly, although they must have been aware of the fact of the patent log being out of order. This method of calculating the speed the evidence did not show the master to have been aware of. The assessor was of opinion that the steamer was to the westward of his assumed position when the last departure was taken. The unhappy position and want of appliances on the two bridge compasses seemed to have prevented them from checking their distances of the Great Hánish and the Mushejjerah islands by the four point or cross-bearings. But after midnight the master appeared to have been aware of the possibility of a westerly set, and the assessor considered that he committed an error of judgment in not having hauled to the eastward at once, instead of doing so at intervals, or in not having verified the vessel's position by a cast of his patent lead. The first, second, and the third officers were equally to blame for not having seen that the orders of the master were carried out, but the Court could not exonerate the master from all blame for the order not having been carried out, or for the patent log not having been hauled in, and read off, seeing that he was on deck most of the night. The first, second and the third officers were each open to censure for their neglect, and if the Court had been of opinion that the stranding of the *Pharos* had been caused by such neglect, they would then have had the power to have dealt more severely with them. The Court observed that after the vessel grounded, all necessary steps seemed to have been taken by the master to get the steamer off the coral reefs. The Court regretted that just as the *Pharos* appeared to be getting off the reefs, the life-boat, with six men in it, was placed in a position of danger which caused the master, in order to prevent loss of life, to stop his vessel's way, in consequence of which the steamer was again forced on to the reefs and became more seriously damaged. The Court recorded that though they considered that they were not justified in dealing with the master's certificate, still they must severely censure him for not having used the appliances he had on board on the night of the accident. The Court observed that the master, the officers, and the crew of the Italian gun-boat *Vedetta*, and the master of the Italian ship *Castel Fidardo* acted most kindly in having given valuable assistance and advice to the master of the *Pharos* directly they knew of his difficulties. The Court accordingly severely censured the master, and the first, second and third officers of the *Pharos*, and returned to them their certificates.]

FEBRUARY.

29. The German iron screw steamer AMALFI [of Hamburg, 1,792 tons register, official number not reported], from Melbourne to Antwerp and London, with a cargo of wool. On the 1st February, at 3 A. M., the steamer *Nederland-en-Oranje* was lying in the Outer harbour of Aden (South coast of Arabia), when the steamer *Amalfi*, leaving port without a pilot, fouled the *Nederland-en-Oranje*, striking her on the port side right abreast No. 3 hatchway and cut her down to the water's edge, and in the course of 10 minutes the *Nederland-en*

Oranje filled with water and sank with her cargo all on board, when the hatches blew off and the cargo began to float out of the hatchways. The *Amalfi*, it was reported, got underweigh before her steam was quite ready, and could not go astern at once when ordered to do so. The weather at the time of the casualty was fine and clear, and the wind calm, with no sea on. The *Amalfi* had 13′ of plates close to the stem cracked and burst, which caused her to make water, but the leak not being heavy, she after being temporarily repaired, proceeded on her voyage. Value of damage to the *Amalfi* and cargo not reported. No loss of life. (The above details were principally compiled from private sources, and beyond the above no further particulars could be obtained by this Department either from the Marine authorities or the Agents at Aden).

(For an account of the Nederland-en-Oranje, see Wrecks No. 9).

30. The British Indian muchwa BHAWANI [of Bombay, 18 tons register, official number 146], from Kalyán to Bombay, with a cargo of grass. It appeared that the two muchwas *Bhagwanti* and *Bhawani* were lashed together, which was generally done when a cargo of grass or hay had to be conveyed. On the 1st February, at 10 P.M., when the *Bhawani* was to the southward of the Thána railway bridge, Bombay harbour, the *Bhagwanti* ran on to a rock which caused both boats to capsize. She was afterwards recovered with little or no damage. All the cargo was lost; value, R200. The crew, 11 men, were saved in the toney belonging to the *Bhawani.* (The casualty was owing to the negligence of the tindal.)

31. The British Indian muchwa BHAGWANTI [of Bombay, 9 tons register, official number 145], from Kalyán to Bombay, with a cargo of grass. It appeared that two muchwas—the *Bhagwanti* and *Bhawani*—were lashed together, which was generally done when a cargo of grass or hay had to be conveyed. On the 1st February, at 10 P. M., when the *Bhagwanti* was to the southward of the Thána railway bridge, Bombay harbour, she ran on to a rock and capsized. She was afterwards recovered with little or no damage. The cargo was all lost; value, R200. The crew, 11 men, were saved in the toney belonging to the muchwa. (The casualty was caused by the negligence of the tindal.)

32. The British iron screw steamer ORIENTAL [of Glasgow, 938 tons register, official number 58315], from Rangoon to Madras *viâ* Coromandel coast ports, with a general cargo. On the 3rd February as the steamer was coming to an anchor in the Cocanada roadstead two brigs fouled one another and fell across the steamer's stem, the engines were stopped and put astern, but the *Oriental's* stern came into collision with one of the brigs, thereby doing some considerable damage. The master stated that no measures could be taken, as the steamer was so surrounded by boats that it was dangerous to move the propeller. No damage to the steamer or cargo. No loss of life. (The collision was caused by the crew of the surrounding boats leaving no room for the *Oriental* to be manœuvred in.)

33. The British iron paddle steamer SESTOS [of Calcutta, 140 tons register, official number 30691] was employed as a tug on the Hooghly river. On the 3rd February, the tug *Sestos* was lying in the river at No. 3 swinging moorings off the salt golahs, on the Howrah side of the river, undergoing repairs. At noon the steamer *Asia*, being in ballast, was proceeding from No. 21 swinging moorings up the river, in order to pass through the Hooghly bridge, in charge of an assistant harbour master. At 12-45 P.M., after going through the bridge preparatory to proceeding into the Howrah dock for repairs, passed close up to the No. 3 dock buoy, and the assistant harbour master considering that the steamer had sufficient way on her, stopped the engines and put the helm hard-a-port; the tide being on the *Asia's* starboard bow, she still sheered to port. Whereupon the engines were ordered to go ahead, but although the steamer went ahead, it was observed that the vessel would not recover

herself, when the assistant harbour master gave the order for the vessel to go full speed ahead. Finding that he could not clear the *Sestos,* the tide being then the last quarter of the ebb, he stopped and reversed the engines full speed astern, when the *Asia* unfortunately ran alongside and fouled the *Sestos,* carrying away the tug's starboard cathead and fish davits, damaging the bridge and main deck awning stanchions, smashing the side light-box, two coaling stages, also making a hole in the bulwarks. Within three minutes after the accident the *Asia* got clear and was safely moored to the Howrah dock buoy. Value of damage to the *Sestos,* ₹300. No loss of life. (The casualty was due to the negligence of the assistant harbour master.)

34. The British iron screw steamer ASIA [of Glasgow, 1,139 tons register, official number 52586], from Madras to Calcutta *viâ* Madras coast ports and Rangoon, with a general cargo. On the 1st February the steamer in charge of a pilot proceeded up the Hooghly river, and at 5 P.M. was moored at No. 21 swinging moorings. On the 3rd at noon, the *Asia,* after discharging her cargo, was being transported from No. 21 swinging moorings, in charge of an assistant harbour master to Howrah dry dock for examination and repairs. At 12-45 P.M., after going through the Hooghly bridge and when close up to the No. 3 dock buoy, the assistant harbour master, considering that the steamer had sufficient way on her, stopped the engines and put the helm hard-a-port, but the tide, which was then last quarter ebb, being on the vessel's starboard bow, the *Asia* still sheered to port. Whereupon the engines were ordered to go a head, but although she went a head, it was observed that the steamer would not recover herself, when the assistant harbour master gave the order for the vessel to go full speed a head. Finding that he could not clear the *Sestos,* which vessel was lying at No. 3 swinging moorings off the Government Salt golahs, on the Howrah side of the river, the *Asia's* engines were stopped and reversed full speed, but to no avail, as the *Asia* unfortunately ran alongside and came into collision with the tug *Sestos,* thereby doing much damage to the latter vessel. The *Asia* was in ballast, and only slight damage was done to her. No. loss of life.

35. The British Indian padow RAMPRASAD [of Mahim, 12 tons register, official number 850], from Diu to Satpati, with a cargo of fish. During a heavy weather on the 11th February the padow became unmanageable and would not answer her helm properly; at 11 P.M., when about 11 miles eastward of Diu (Káthiáwár coast), the strong winds suddenly caught the sails and caused her to heel over, when having filled with water, she turned keel upwards and lost all her tackle, &c. The padow was afterwards recovered and repaired. Value of damage, ₹150; cargo all lost, value ₹276. The crew, 10 men; 5 persons were picked up by a passing craft and the remainder were drowned.

36. The British iron screw steamer ASSYRIA [of Glasgow, 969 tons register, official number 67980], from Basra to Bombay, with a general cargo. It appeared that the steamer, after leaving Bandar 'Abbas, was to tow the hulk *Beemah* from Bandar 'Abbas to Laft Bay in the Clarence Strait in order to beach her for repairs. At about 5 P.M, on the 12th February, whilst towing the hulk in charge of a local native pilot, the *Assyria* took the ground on a shoal near Laft off Ala Mulk in latitude 26° 57′ N., longitude 55° 48′ E. (Persian Gulf). The hulk was immediately signalled to to sheer off, but it was too late, and the *Beemah* having headway ran into the stern of the *Assyria,* thus seriously damaging the latter vessel's screw-steering gear, stern mouldings, covering board, &c., and two stern ports with fittings were stove in. The steamer on her arrival at Bombay was docked owing to her having grounded as stated above; and on examination her bottom was found to have been uninjured on account of the bottom being sand, and also to the *Assyria* going at an easy speed. The *Beemah's* stem was considerably damaged. The steamer after having been aground for nearly

2 hours, floated off as the flood-tide made and proceeded on her voyage. It was a smooth sea and a clear weather; the wind was a light breeze from the S.E. The pilot, owing to inattention or incompetency, kept the steamer out of the channel and thus caused the accident. He stated that owing to hazy weather he lost sight of his land marks and turned the edge of the shoal too sharply and thus grounded the vessel. Value of damage to the *Assyria*, ₹800. No loss of cargo. Value of damage to the *Beemah*, not stated. No loss of life.

37. The British wooden schooner BEEMAH [of Bombay, 170 tons register, no official number, belonging to the British India Steam Navigation Company], was employed as a cargo hulk at Bandar 'Abbas. On the 12th February the hulk was being towed to Laft Bay from Bandar 'Abbas for repairs by the steamship *Assyria*, belonging to the same Company, when at 5 P.M., in consequence of the inattention of the native pilot, the *Assyria* grounded on a shoal off Ala Mulk in Clarence Strait, in latitude 26° 57′ N., longitude 55° 48′ E. (Persian Gulf). The *Beemah* was immediately signalled to to sheer off, but the hulk, however, had too much headway on for this movement to be of any service to her, and in a couple of seconds afterwards the *Beemah* retaining her way, ran into the stern of the *Assyria*, seriously damaging the latter vessel. The *Beemah* did not take the ground. The hulk's main stem and apron were cut through above the water line, and the hood-ends of the planking damaged; estimated value, ₹2,000. No loss of life. (The Agents reported that the collision occurred through the steamer striking the ground on an uncharted danger in the Clarence Strait. It was really due to the inattention of the native pilot in having kept the steamer out of the channel, the shoal being well known. The pilot stated that owing to hazy weather he lost sight of his land marks, and turned the edge of the shoal too sharply and thus grounded the steamer.)

38. The British iron ship ROMAN EMPIRE [of London, 1,542 tons register, official number 54638], from Calcutta to London with a general cargo. It appeared that on the morning of the 12th February the ship, in tow of the steamer *Alexandra* and in charge of a pilot, proceeded down the Hooghly river from Garden reach and anchored above the Haldia river, at 10-50 P.M., for the night. On the following morning the ship weighed anchor and continued on her way down the river. At 10 A.M., on that day, whilst the vessel was going down the Bellary channel, midway between the Lower Western Bellary buoy and the Bellary tripod, the pilot observed that the ship *Killean*, in tow of the steamer *Defiance*, also proceeding down the river, was in company and close abreast the *Alexandra*, and the steam-ship *Astronomer*, inward bound, coming in an opposite direction, thus the *Roman Empire* suddenly shoaled her water to a quarter less 4 fathoms, whereupon the pilot immediately put her helm hard-a-starboard, and ordered the tug *Alexandra* to do the same, when unhappily both hawsers of the *Roman Empire* parted and her head payed off in shore, and she grounded in the Bellary channel, on a lump or spit projecting from the bank, about 400 yards to the N. E. of a small creek above the Haldia mark, the Bellary tripod bearing S. W. ½ W. The pilot stated that at the time of the accident the *Roman Empire* was heading fair down the channel, and he was of opinion that had the vessel's head payed off in answer to the helm barely half a point, the ship would not have grounded. The pilot got the steamer ahead again and tried to pull her off, but without result. The tug then tried to tow astern, but the tide having fallen, all efforts to get the vessel afloat proved unsuccessful. When the hawsers first parted and the *Roman Empire* took the ground the soundings gave nothing less than a half three fathoms, but afterwards, on carefully sounding, found a little less water on the port bow. Several attempts to tow the ship off by bow and stern having only resulted in parting hawsers,

it was decided to try it on the night's flood-tide; at 7-30 P.M., the pilot got the steamer's hawsers and passed them astern, and at 9-50 P.M., the *Alexandra* towed her off, when the ebb-tide made the pilot dropped the *Roman Empire* down and anchored in 5 fathoms of water above the Bellary tripod for the night. The *Roman Empire* was aground for 12 hours. No damage to the ship or cargo. No loss of life. (The pilot of the *Alexandra* stated that the cause of this accident might be attributed to the ship *Killean* hugging the *Roman Empire* into the bank and sheering across her bows, thus preventing her from keeping more out.)

The Port Officer recorded that the projecting mud bank had probably extended at the part of the Bellary channel where the ship *Roman Empire* struck the ground, which should be marked by a buoy, as in July 1884 the steam-ship *Atholl* grounded in the same place. The blame attributable to the pilot for this casualty was, in the Port Officer's opinion, slight, especially as, owing to other vessels passing at the time, he was obliged to keep over to that side of the channel.

39 & 40. The British iron screw steamer CAIRO [of Cardiff, 1,469 tons register, official number 87,476], left Singapur at 5 P.M. on the 8th February with 220 tons water ballast, bound for Rangoon, and all went well with the vessel up to the 14th. At noon of that day her position by observation was latitude 15° 58′ N., longitude 96° 18′ E., distant about 18 miles S.S.E. of the China Ba-Keer light-house. A course was then shaped to sight the light-house, and after steering N. by W. ¾ W. for 10 miles, and failing to observe the light-house, although the land was discernible, the master hauled the steamer to the northward, thinking that the vessel was to the westward of the supposed position. The master stated that he at the same time kept a good look-out, and placed the third officer at the lead. Soundings were then taken, and 4 to 5 fathoms were found. After 1-40 or 1-50 P.M. the master ordered the third officer to go in the chains and to keep the lead constantly going; the soundings got were 4½, 5, 4, 3¾, and 6 fathoms, but the time was not noted at each sounding. At 6 o'clock the same evening the master having failed to sight either the Pilot brig or any known object, determined to anchor for the night, but the vessel suddenly shoaling the water, the master hauled her to the southward and eastward, and whilst in the act of turning, the *Cairo* took the ground on the Eastern sands, in latitude 16° 25′ 30″ N., longitude 96° 43′ 30″ E., entrance to the Rangoon river, Gulf of Martaban (Burma coast). At 2-30 A.M. the next morning, on the flood-tide making the steamer floated off after having been aground for 8½ hours. The master stated that at 2-30 o'clock on the morning of the 15th, after the vessel got off, she was steered S.S.W., because he felt quite confident that he was taking the steamer into deep water. Unfortunately, at 6-40 A.M., the *Cairo* again took the ground on the Eastern sands, and remained hard and fast until about 20 minutes past 2 P.M., when she floated, after having been aground for 8 hours, and was backed into 5 fathoms of water, where she was anchored. The first officer stated that the weather was fine but a little hazy. The horizon was clear when the sights were taken, and the position of the vessel by observation fixed. On the afternoon of that day he went on watch and steered N. by W. ¾ W. till 1-30 or 2 o'clock. When he left the bridge he was relieved by the second officer—the master being on the bridge at the time. From noon of that day to 2 P.M., the speed of the steamer was reckoned to be 9 knots an hour, and the course steered was N. by W. ¾ W.; the next courses were various. The land was discernible when the accident occurred; it had been sighted since noon of the 14th, and the anchor was let go before she grounded. When she tended to her anchor her head was first S. by E. and then South, after which she struck the ground, it being then ebb-tide; the steamer was in shore, consequently her head tended to the South, and she remained there. He could

not say for a certainty whether any allowance was made for the flood-tide. After the accident, the tide left the vessel half dry, and when the flood came up, the master was on the bridge and all hands were at their stations. At 40 minutes past 12 o'clock on the morning of the 15th, the starboard anchor was let go, but it began to come home. Twenty minutes afterwards the port anchor was dropped, but it was soon hove up again, and at 2-10 A.M., the vessel weighed. The first officer alleged that the port anchor was the first to be let go and that the steamer did not settle on her anchor on that day. On the second occasion when she struck the ground on the morning of the 15th the anchor must have gone through her bottom between 2-20 and 6-40 o'clock. He could not say how the steamer steered after getting off the sands the first time. Observations were taken morning and afternoon by the master, assisted by the first or second officer; they each worked them out separately and compared the results with the master. In passing up the Malacca Straits the chronometers were from time to time compared, and were found correct, Azimuths and amplitudes were taken daily, and the compasses compared and deviation ascertained. When the third officer was sent to the lead, the steamer sometimes went slow and at others fast. Except the hole made by the anchor and some straining no other material damage was done to the steamer; but from the appearance of the butts, which were moist, she was seriously strained. The master swore that he was on the bridge nearly the whole of the afternoon of the 14th, and being confident of his position and having the lead constantly going, he did not think it necessary to take an afternoon sight. The draught of the vessel when fully laden was 23′ 11″, and had it been only 13′ 9″, he stated that he would have acted according to circumstances as to whether he should have gone on in 5 fathoms even against the Sailing directions. The master stated that when he shaped his course he allowed for one hour's flood, and which he imagined would be weak, as it was the last hour. He stated that he made an allowance for the tide on the course he then steered, because he wanted to pass 6 miles to the eastward of the China Ba-Keer light. The chief engineer stated that he was in charge from noon on the 14th, and at a quarter to 2 on that afternoon the engines were set slow. At the time, as the master told him about an hour before, that he was going to anchor the chief engineer allowed the fires to burn down, and the engines were going about half speed. He said that this was the first voyage he had made with the master, whom he considered to be a very careful navigator. The *Cairo* on her arrival in Rangoon harbour was placed on the gridiron for examination and repairs. She subsequently loaded, and on the 27th February sailed, bound to Suez, with a cargo of rice. Value of damage to the steamer ₹3,150. No cargo on board. No loss of life. (The cause of the accident was due to neglect on the part of the master in not having taken precautionary measures by sounding to enable him to find out the position of his vessel.)

[A Special Court of Inquiry was held in the District Magistrate's Court, Rangoon, on the 25th and 26th February, by the Deputy Commissioner under section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances attending the grounding of the above vessel near the entrance to the Rangoon river on the 14th and again on the 15th February. The Court recorded that the Government Prosecutor was of opinion that both groundings were occasioned by the neglect of the master in not having taken precautionary measures by sounding to enable him to find out the correct position of his vessel until it was too late. The steamer had a hole made in her bilge by the pea of the anchor when she first struck the ground, which damage had since been repaired. The Court observed, that after having examined the charts and noted the position where the steamer grounded on two different occasions, and after having taken the evidence of the first officer and the chief

engineer, they were of opinion that the master of the *Cairo* committed an error of judgment by not having made due allowance for the flood-tide, and that subsequently he displayed a want of caution. *First*, by not having taken an afternoon observation for longitude, seeing he had not sighted the China Ba-Keer light-house as he expected; and *secondly*, in getting the steamer *Cairo* into $3\frac{3}{4}$ fathoms without being certain of his position. The Court were, however, of opinion that no reason had been shown to charge the master of the *Cairo* with incompetence, and they therefore recommended that he should be warned to be more careful in future. The master was accordingly reprimanded and cautioned to be more careful in future, and his certificate was returned to him.]

The Chief Commissioner of British Burma accepted the finding of the Court that the master be warned to be more careful in future.

41. The British composite screw corvette EURYALUS [of London 1,289 tons register, belonging to the Royal Navy, on the East India Station], from Calcutta to Rangoon. On the morning of the 17th February the steamer, in charge of an assistant harbour master, was dropping down the Hooghly river from No. 6 Esplanade moorings to Garden reach; at 8 A.M., in passing H. M. S. *Dragon,* the *Euryalus's* bow paid off to port, and the assistant harbour master not having sufficient room to straighten the vessel up, fouled the *Dragon,* which vessel was lying anchored in mid-channel off Prinsep's ghât. The *Euryalus* had her foretopmast, studding sailboom and some of the head gear carried away. Value of damage to the *Euryalus* not reported. No loss of life.

[A Departmental Committee of Inquiry was held by the Deputy Conservator into the above casualty, but a copy of the proceedings and report was not furnished to this Department by the Port Commissioners; it appeared that the collision was attributable to an error in judgment on the part of the assistant harbour master in charge of the *Euryalus.*]

42. The British composite screw sloop DRAGON [of London, 1,150 tons register, belonging to the Royal Navy, on the East India Station], from Calcutta to Rangoon. On the 16th February the assistant harbour master hauled out the *Dragon* from No. 7 Esplanade moorings and dropped anchor as far to the westward of mid-channel off Prinsep's ghât, Hooghly river, as it was deemed necessary to go, where she lay anchored in charge of the assistant harbour master for the night preparatory to proceeding down the river the next morning. At about 8 A.M. on the 17th as the *Euryalus* was dropping down her bow paid off to port, and before she could be straightened up again she came into collision with the *Dragon.* The latter vessel had two boats smashed, and some main and mizen running gear and one studding sailboom carried away. The assistant harbour master of the *Dragon* affirmed that there was sufficient room for the *Euryalus* to have dropped down clear, as the steamer *Rewa,* the barque *Ophir* in tow of the steam-tug *Court Hey,* and ship *Hesperides* in tow of the tug steamer *Retriever,* had all dropped past her clear and with room to spare; besides the *Dragon* was visited by the Deputy harbour master, who would certainly have reported had he considered that enough room had not been kept for passing vessels of any size. The assistant harbour master was desirous of dropping down to Garden reach early that morning, but the commander of the *Dragon* did not permit the unmooring of the steamer until 9 A.M. Value of damage to the *Dragon* not reported. No loss of life.

[A Departmental Committee of Inquiry was held by the Deputy Conservator into the above accident, but a copy of the proceedings and report was not furnished to this Department by the Port Commissioners; it appeared that the collision was attributable to an error of judgment on the part of the assistant harbour master in charge of the *Euryalus.*]

43. The British iron ship FALLS OF AFTON [of Glasgow, 1,899 tons register, official number 85918], from Rangoon to Liverpool, with a cargo of rice.

On the 17th February the ship was lying at anchor off Godwin's wharf in the Rangoon river (Burma coast); at 5 P.M. the same day during a strong flood-tide she parted her cable at 43 fathoms, thus losing the anchor. The casualty was caused by the vessel having a foul hawse, and there being a defective link in the chain at 43 fathoms. The lost articles were afterwards weighed at a cost of R140, but could not be returned, as the vessel had then left port. It was reported that the ship was supplied with a new anchor and chain, which cost £80. No damage to the *Falls of Afton*. No loss of cargo. No loss of life.

44. The British iron screw steamer ARABIA [of Glasgow, 694 tons register, official number 47841], from Linjah to Bander 'Abbas, with a general cargo. It appeared that the steamer was bound from Basra to Bombay, touching at coast ports. She left Basra on the 13th February with a general cargo, called at Lingah, and left that port on the evening of the 17th at 3-25 P.M. All went well with the steamer up to 11-22 P.M. the same night. At eleven minutes past 11 o'clock on the night in question, the *Arabia* was proceeding down the Persian Gulf, steering N. 70° E., and when S. W. by S. of Salak on the island of Kishm, distant about 7 miles, a *Bagarah* was hanging to her nets showing no lights, and was lying very low in the water without mast or sail up. The crew of the boat gave no sign of their presence until two minutes before the accident happened, and then it was too late to be of any service, for the *Arabia* ran into the *Bagarah*, the former vessel's cutwater thus striking the boat. After the collision the boat drifted past the steamer on the starboard side; she was cut in two, and sank in 25 fathoms of water in latitude 26° 32′ N., longitude 55° 47′ E. The master was in the chart-room alongside the bridge asleep; the third officer was on watch, and there was besides a khalassie on the look-out forward and another khalassie with a seacunnie keeping a good look-out on the bridge. The master stated that he heard the steam whistle, and thinking that something was wrong, quickly jumped up, and within three seconds he was on the bridge. On arriving at the bridge he was told that the engines had been ordered to go full speed astern as there was a fishing boat or something ahead which he (the third officer) could not quite make out, and also heard shouting. Just at that very moment the master heard a crash and some shouting on the starboard bow, and saw men in the water. He thereupon instantly directed the engines to be stopped so as to allow the men to pass the propeller without injury. At the same time he ordered the third officer, who was aft, to lower away the mail boat, which was down in the water within four minutes; and the first officer, who had just then gone on the bridge was instructed to heave overboard a life buoy with a patent light attached to it. Within two minutes the mail boat was got away from the steamer, and the third officer picked up three men, who were clinging to the buoy, and put them in the life boat; he searched for the remaining three men, but not finding them, the mail boat pulled to the vessel, and the men in it were taken on board, and after hoisting the boat the *Arabia* proceeded to Bandar 'Abbas and Maskat, at which latter port the ship-wrecked men were landed and placed in charge of the British Consul with instructions to the British India Steam Navigation Company's Agents to have them sent back to Linjah. The master alleged that he saw nothing of the *Bagarah* before the casualty. The third officer stated that at 11 o'clock on the night in question he sighted the island of Kishm on the port bow, which bore N. E. by N., distant about 10 miles, and he laid down that bearing at the time on his chart. The steamer was proceeding at the rate of 6 knots an hour, but at the moment of the accident it seemed that she was going no more than one knot through the water. When he went on deck, the third officer told the master that the helm was hard-a-starboard. It was raining at the time, and it was a very dark night, the weather being cloudy; the wind

was E.N.E. and there was a short breaking sea on. The master said that the circumstances connected with the accident was entered both in the first officer's log-book and in the official log-book, and an entry had also been made in the deck log by the third officer. Both the master and the first officer stated that they considered it unnecessary to throw out more life buoys, because the patent light (one of Holmes') gave a brilliant lustre, thereby showing very clearly what they were doing. The master positively stated that he did not think that the starboard helm could have had any effect on the *Arabia*, because when the steamer was put astern, her bow always fell off to starboard. The look-out man, who was in the bows on board the *Arabia,* stated that on the night of the 17th it was dark and raining, the wind was a strong breeze from the eastward, and that he neither saw any light, or sail, or the fishing boat. It was after the collision that, on looking over the vessel's starboard side, he observed the boat for the first time. He did not hear any outcry before he sighted the boat because the wind was strong. The seacunnie stated that he was at the wheel on the night in question, looking into the compass, and was therefore unable to say what took place forward, nor could he remember the course the vessel was then being steered. He was ordered to put the helm to hard-a-starboard, which was done with the result that the steamer's head payed off 5 or 6 points. The first officer swore that he was down below in his cabin at 11-22 P.M. that night, when he was roused out of his sleep by the engines stoping and then going astern. He at once went straight from his room on to the bridge, and on arriving there, was directed by the master to go aft and heave one of the life buoys overboard. The third engineer said that he was in bed at the time of the accident, and the fourth engineer was on watch. At 22 minutes past 11 o'clock that night, an order was given to go full speed astern, and two minutes afterwards they were stopped; the next order was at 12-53 the following morning, to go slow ahead, and the next was full speed ahead at 1-4 A.M. He alleged that there was no orders given between slow ahead and full speed ahead, but that it took two to three seconds to reverse the engines from full speed ahead to full speed astern, the steamer being fitted with compound engines; she had not the steam reversing gear. No damage, loss of cargo, or loss of life to the *Arabia.*

[A Marine Court of Inquiry was held in the Fort Police Court, Bombay, by the Chief Presidency Magistrate on the 4th and 7th March, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), to inquire into the circumstances connected with the fouling and sinking of a fishing *Bagarah* by the steamer *Arabia,* which disaster occurred in the Persian Gulf, resulting in the loss of three lives. From the evidence before the Court it appeared that the steamer *Arabia* left Basra with a general cargo, bound for Bombay touching at intermediate ports; she called at Linjah and left that port on the afternoon of the 17th February. The master stated that at about 11-22 that night he was asleep in the chart room. It was a very dark, cloudy night; the wind was E.N.E., and there was a short breaking sea on. He was awakened by hearing his steam whistle, and thinking there was something wrong, went on the bridge, where he met the third officer who was on watch. It did not take him more than two or three seconds to get from the chart room to the bridge. The third officer told him that he had put the helm hard-a-starboard, and had telegraphed to the engine-room to go full speed astern; that there was a fishing boat or something ahead which he could not make out, and that he had heard shouting. As the third officer was saying this, the master stated that he heard a crash and shouting, and saw men in the water. He immediately ordered the engines to be stopped so that the men could pass the propeller without injury, and he ordered the third officer aft to lower away the mail boat. The mail boat,

which was always kept ready for emergencies, was lowered within two or three minutes. The first officer had at once by the orders of the master thrown a life buoy over board, with a patent light attached to it. In about five minutes from the time the collision took place, the third officer picked up three men, who were found clinging to the life buoy which had been thrown over board. He searched all round the patent light and the wreck of the *Bagarah,* and reported he could see no one else in the water. In the meantime the *Arabia* drifted on to the wreck of the *Bagarah,* but nobody was seen near it. The master, after making further search, and failing to find any other persons in the water, ordered the men from the boat to get on board and proceeded on his voyage at 12-53 o'clock the next morning (the 18th). The steamer called at Bander 'Abbas and then at Maskat, where the master took the three men he had picked up ashore to the British Consul, to whom he made a full report of the facts of the case. The British Consul took down the statements of the three men. The master left the men at Maskat in charge of the British India Steam Navigation Company's Agent to be sent back to Linjah, and proceeded on his voyage to Bombay, arriving there on the 27th of February. From the written statement of the owner and master of the *Bagarah,* taken by the British Consul (a certified copy of which was put in), it seemed that he and five others were in a fishing boat made fast to their net which was down; their mast was unshipped, they had no light, and they were asleep, they heard the steamer *Arabia* approaching them and they awoke; they tried to light some palm leaves to make a blaze, but it was raining and they failed to do so; the steamer came straight down on them, when they shouted but could not get out of the way, the result being that the boat was cut in two and sank. The steamer lowered a boat immediately and picked up three men, but the other three were drowned as they could not swim. At the time the collision took place, the *Arabia* was about 7 miles S. W. by S. from Salak on the island of Kishm, and the master stated that fishing boats were not often met with in that quarter. The depth of the water where the accident occurred was 25 to 30 fathoms. The *Bagarah* was struck by the cutwater of the steamer and drifted along her port side. The Court recorded that the third officer had gone in the steam-ship *Tenasserim* to Suwákin in Africa. He made an entry in the deck log-book as follows:—"At 11-21 P.M. heard shouting, apparently on the starboard bow, but saw neither light, sail, nor anything else; put the helm hard-a-starboard and blew the whistle to call the master; at 11-22 P.M. rang the telegraph full speed astern." At that time the man on the look-out forward shouted out something, and about two minutes afterwards the steamer struck the *Bagarah,* which proved to be a fishing boat. The man who was on the look-out that night stated it was a dark night, it was raining and the wind was strong; he did not see any light, and neither did he see the fishing boat until the steamer was quite close to the *Bagarah;* and there was no light in the boat. After carefully considering the evidence of the master, the officers, and the crew of the steamer *Arabia,* and from the statements of the owner (also master) and two of the crew of the *Bagarah,* the Court were of opinion that the collision was solely the result of an accident. The night being dark and cloudy with rain, the fishing boat *Bagarah* not having shown a light of any kind, and her crew also having been asleep up to within a very short time of the collision, no blame could be attached to the officers or crew of the steamer. Prompt measures were at once taken to save life, but the Court regretted that in consequence of the fishing boat showing no light, the lives of three men had been lost. Though in this case the Court did not think that any more lives would have been saved if more life buoys had been put overboard, yet the Court were of opinion that more than one life buoy should have been thrown overboard. The Court, therefore, returned to the third officer of the *Arabia* his certificate.]

(For an account of the Bagarah see Wrecks No. 15)

45. The British iron barque DEANFIELD [of Liverpool, 1,072 tons register, official number 78787], from Diamond island (Bassein river) to Rangoon, with 700 tons stone ballast. It appeared that the barque on the 17th February was proceeding along the coast, and at noon, the vessel's head being W.N.W. and the weather fine, soundings were taken in 7 fathoms of water; the lead was continued to be hove, and all the time, up to 2 P.M. of the same day, she got bottom at 7 fathoms and upwards; but the water subsequently shoaled to 6 and 4 fathoms, when the master immediately tacked the barque to S.E. and kept the lead constantly going. An hour afterwards it fell calm, and the master having no control over the vessel, he ordered the port anchor to be dropped, but before the barque brought up, the current being very strong at the time, her stern was carried on to China Ba-keer sands and the *Deanfield* grounded half-way between the Krishna shoal and the China Ba-keer light-houses, entrance to the Rangoon river, Gulf of Martaban (Burma coast). She remained fast until the flood-tide made, but as the wind was right against her, nothing could be done, so the crew commenced discharging ballast. Subsequently the master sent the first officer in a boat up to Rangoon for the assistance of a tug, and in the meantime the crew continued vigorously discharging ballast. On the 23rd the tug steamer *Ngapoota* arrived with coolies on board and endeavours were made to float her, but unsuccessfully. The whole of the crew were mustered and the boats got out, when anchors were laid out and efforts were made to kedge her off, but to no purpose. The attempts to get the vessel off were continued up to the 25th without success. On the 26th, after having been lightened of about 400 tons of ballast, hawsers were passed to the tug, and she was successfully towed off by the tug *Ngapoota* and brought up to Rangoon the following day. On the 2nd March the Surveyor to Lloyds' Agents proceeded on board the *Deanfield,* then lying in the harbour of Rangoon, for the purpose of ascertaining the nature and extent of any damage she might have received in consequence of having been on shore on the China Ba-keer sands. After a very careful survey it was found that there was no appearance of the barque having suffered in any way; the cement in her bottom was quite intact and she was making no water whatever. The Surveyor, therefore, was of opinion that the *Deanfield* was still tight, staunch, and strong, and fit to carry a dry and perishable cargo to any part of the world. The barque was aground for 10 days. Value of damage to the *Deanfield,* R4,080. No cargo on board. No loss of life. (No Court of Inquiry was held in the matter; this accident, it was reported, occurred through the master having borrowed too much on the sands; the wind having fallen light, the strong current swept the *Deanfield* inshore.)

46. The British iron barque GLANPERIS [of Carnarvon, 1,074 tons register, official number 77415] left Newcastle, Australia, on the 3rd December with a cargo of 1,660 tons of coals, bound for Tuticorin. There were on board Imray's General chart of the Indian ocean and another General chart of the East coast of India from Cape Comorin to Cocanada, published by the Admiralty in May 1877. The master stated that he worked upon those charts with reliance for the purpose of bringing his vessel safely into Tuticorin anchorage. He further stated that he was not aware that there were any large scale charts of the coast of Tinnevelly, or of the Tuticorin anchorage. All went well on the voyage, and the vessel touched nowhere. The master alleged that at noon on the 14th February he sighted land to the West of Point de Galle harbour, which bore N.E., distant 20 miles. The barque then bore up the coast as far as Colombo with light variable winds, and at noon of the following day Colombo bore E. by N., distance 24 miles. From that point the master stated that he shaped a N. W. course till the 16th, when her position at noon was by observation 7° 51′ N. latitude, and 78° 22′ E. longitude by chronometer. The chronometer was

verified off the coast of Ceylon and found correct. From the 16th to 17th she had baffling winds. On the 17th, noon, the vessel's position was in latitude 8° 15′ N., longitude 78° 18′ E. At 4 o'clock that afternoon the high land over Cape Comorin was sighted, when the barque was kept up the coast until 10 P.M. when Hare island light in Tuticorin harbour was sighted from the masthead, bearing N.N.W. The master then changed the course to N. by E. ½ E., and continued on that course for about 13 miles up to midnight. At midnight it was reported that Hare island light bore W. by N., and on the deep sea lead being hove, soundings were got at 11 fathoms, and the vessel was not going much more than 3 knots an hour. It was not a clear night but a little hazy, and no horizon was visible; the wind was S.W., and it was a gentle breeze. At that time there was a man with the first officer on the look-out forward, a man at the wheel, and one man in the chains. After midnight the barque having the square sails on her, also the spanker and jib, was headed for Hare island light. The second officer heaving the lead constantly, reported soundings successively in 10, 9, 8, and 7 fathoms. The master now made certain that the position of the vessel was 9 miles off the light. At 30 minutes past 12 o'clock the next morning, the master took in sail with the watch, and a quarter of an hour afterwards all hands were called up, when the royals were taken in and stowed, the topgallantsails clewed up, and the mainsail hauled up. The master alleged that at 12-15 A.M., on the 18th he took the second officer out of the chains and relieved him by an able seaman, as the water was then shoaling fast. The barque was getting 7 and 6 fathoms at 12-45 A.M., when at 1 A.M., the water suddenly shoaled to 4 fathoms, and the *Glanperis* grounded slightly on the Rocky ledge, one mile to the East of Hare island light-house, Tuticorin harbour (Gulf of Manár). The vessel, after the casualty happened, was still heading for the light, and had her lower and upper topsails on her, but the master first gave the order to haul up the foresail, the forestaysail, and the jib and spanker were also set. The master then backed all the yards to try and get her off, but she did not pay off; he then gave directions to lower a boat lowering the forward end himself, and ran out two kedge anchors with warps astern, and though they were hove taut, yet the vessel showed no signs of moving. At dawn the master went ashore to obtain lighters and assistance. The barque was bumping a little, but not severely. At 9 A.M. the master returned with lighters and coolies, and being assisted by the crew, commenced vigorously discharging coal. At noon the steam launch *Madura Meanachy,* belonging to the Agents of the British India Steam Navigation Company, having the Port Officer and Lloyds' Agents on board, went alongside and afforded all possible help. At 2 P.M. the vessel being considerably lightened, a stream anchor was carried out with the largest hawser, and on this an attempt to heave off was commenced with the aid of the steam launch, and at 4 P.M. the barque floated, but the sea breeze setting in, the tow ropes parted, and she thus settled back on the shoal, drifting with her stern first and sticking by the heel. The crew, with the assistance of the coolies, then continued discharging the cargo all night, and at 3-30 A.M. the next day (the 19th), after being lightened, by discharging about 200 tons of coals into lighters, she was again afloat when the anchor was hauled up, and with the help of the steam launch and sails, was eventually towed off and safely anchored in the roadstead. She was aground for 26½ hours. The probable reason accounted by the master why the first officer omitted entering the speed of the vessel in the log-book was that he had bearings of the land. The first officer in evidence stated that he took no observation himself, and the wind being so variable that he could not find the vessel's position, the reason was he had not put in any reckoning on the day in question. He said that the course was altered after sighting the light, because the barque was found to be heading inshore too much. The master stated that he was

just thinking of bringing up when the casualty unfortunately happened. He was on deck, in charge of the vessel, from the evening of the 17th until the barque struck the ground early the following morning. The loom of the land was not discernible, the master stated, to cause any fear or to persuade him to take extra precaution in respect to the vessel's position. He had been up all the night previous, and being anxious not to lose the sea breeze, pushed on to the anchorage, though it might not have been quite prudent to have done so during dark in a new place. The only loom visible was that of the *Galatia* (an Anchor Line steamer wrecked in June 1884 in Tuticorin harbour) on the starboard bow, and her position, the master said, misled him and made him feel confident that his vessel was safely proceeding, whereas very shortly afterwards, the casualty happened. There was no light marking the wreck of the *Galatia*. The witnesses all swore that the starboard anchor was cockbilled, but no order had been given to let it go, which was accounted for by them on the ground that, even after the accident had occurred, no one had any idea of their correct position or how near the barque really was to the shore. An able seaman (who held a first officer's certificate, but had been under suspension since June 1884), alleged that he went into the chains about 20 minutes after midnight of the 17th. He relieved the second officer and hove the hand lead from the mizen chains. He said that there was no cast of $5\frac{1}{2}$ fathoms, but there was only a few casts of 7 and 8 fathoms before the vessel struck the ground, the last obtained being 6 fathoms, but after the accident a cast of a quarter less 4 was got. He said that sounding on a dark night he might have made a mistake, but he was careful. The vessel's log-book kept by the first officer was produced, in which the barque's position, the courses and the distance run, appeared to have been entered the day after the vessel stranded. The first officer, upon being shown the position of the vessel at 12 midnight, worked out, *first*, by the bearings of the light recorded in the log-book; *secondly,* according to the course given in the log-book, alleged that the course was more correct than the bearings. The entry in the log-book, 8° 15′ N. latitude and 78° 18′ E. longitude, was the correct position in which the vessel was at noon the previous day, but did not exactly recollect how it was got. In the course of the investigation, enquiries had been made regarding the sobriety of the master, when it appeared that it was evident that the impression on the minds of those aboard the *Glanperis* was that the master was a most sober man. This accident, no doubt, occurred through the master mistaking his distance from the Hare island light at night by not having verified his position accurately by bearings and distance run, and soundings before standing in for the light, also through running past the anchorage when the soundings should have guided him. The lead was hove, but soundings seemed to have been inaccurately given. On the 5th March after all the cargo had been discharged, Surveyors proceeded on board the *Glanperis,* accompanied by native divers, and held a survey of the vessel afloat. They reported that the barque was making no water. On a very careful examination of her bottom inside, it was found that the cement was in good order and showed no signs of straining; and in one or two of the limber boards forward of the mainmast ruts had been cut into the cement by some loose iron bolts rolling about. They advised the master to have those ruts filled up with cement. The frames were next examined and tested, but were found to be all sound; the collision bulkhead showed no signs of having started or strained; the rudder, the coats, the wedges, the steps of the masts, the deck butts, and cement on the waterways did not exhibit the least sign of the vessel having been strained or hurt whilst aground. The Surveyors reported that one native diver examined the vessel's bottom outside from stem to stern on the starboard, whilst another native diver examined the port side. The divers stated that the *Glanperis* was not injured in any way, but was in good order. The Surveyors were, therefore,

of opinion that the barque had sustained no material damage by the accident, and that she was still sound and in a seaworthy condition. Value of damage to the *Glanperis,* ₹1,470. No damage to the cargo. No loss of life.

[A Special Court of Inquiry was held in the office of the Port Officer of Tuticorin, on the 9th and 10th March, by the District Magistrate of Tinnevelly, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), for the purpose of investigating the circumstances attending the stranding of the above vessel. The President recorded that he had had to defer holding this inquiry until he returned to head-quarters from tour of inspection. On the arrival of the President at Tuticorin, the Court assembled on the 9th March, and it having appeared that this investigation was likely to involve the consideration of the question as to the cancellation or suspension of the certificate or certificates of some one or more of the officers of the *Glanperis;* they, under section 13 of the above Act, appointed as their assessor one person conversant with maritime affairs—no shipmaster being available. The sitting of the Court occupied the afternoon of the 9th and the morning and afternoon of the 10th March. The Court examined the master, the first officer, and three able seamen. The Court observed that the evidence showed that the *Glanperis* was bound from Newcastle in Australia to the port of Tuticorin, and had had a prosperous voyage until she grounded on the Rocky ledge off Hare island on the morning of the 18th February at one o'clock. The master and the first officer gave her position at noon on the 17th as latitude 8° 15′ N., longitude 78° 18′ E. At 4 P.M. the highland inside of Cape Comorin was sighted; the barque was kept up the coast till 10 o'clock that night, when the Hare island light was visible from the mast head, bearing as recorded in the vessel's log-book N. N. W., distant 21 miles. The course was then altered to N. by E. ½ E., on which the barque ran, so the witnesses stated, 13 miles till midnight, the light bearing W. by N. At midnight the *Glanperis* was in soundings, the deep-sea lead giving 11 fathoms, the master then judged his position to be between 8 and 9 miles off the light. The night was hazy, the wind was light, and the vessel not going much more than 3 knots an hour. He then headed the barque for the light. At about half an hour after midnight he commenced taking in sail with the watch, and at three-quarters of an hour after midnight all hands were called up for the same purpose. The water was then shoaling fast, as the vessel had passed from 11 to 6 fathoms, and shortly afterwards, and just as the master was thinking of bringing up, the *Glanperis* glided on to the shoal about one mile to the East of Hare island lighthouse, striking the ground lightly in 4 fathoms. The Court regarded that the evidence showed that the starboard anchor was cockbilled, but no order had been given to let it go, which was accounted for by them on the ground that even after the accident had occurred, none of the officers or crew had any idea of their correct position, or how very near the barque actually was to the shore—one mile. All proper steps were taken after the vessel struck the ground; and when daylight came, assisted by the Port Officer and the steam launch *Madura Meanachy,* the master got the barque safely off the reefs without having sustained the least damage. The Court observed that the evidence in this case gave rise to the following considerations:—(1) whether the master had taken sufficient precaution to verify his exact position on the night of the 17th; (2) whether, when he determined to head for the light after midnight, he handled his vessel in a seamanlike manner, bearing special regard to the circumstance that the coast was, for all practical purposes, to him quite unknown; and (3) whether, after the accident, all was properly done. As to the first point, the Court regretted to find that no information could be got from the vessel's log-book. Apart from the fact that all the entries which concerned the accident, and the twelve hours previous to the casualty, had been written up since, and that the first officer was very vague how he got his observations, one of the

members of the Court had shown conclusively on the larger chart that either the bearing of Hare island light at 10 P.M., of the 17th, as they were then recorded in the log-book, or the course run afterwards, was incorrect, and that probably both were. The Court recorded that both the master and the first officer admitted as much in their evidence. The Court observed that the master, who was a thoroughly straightforward man, took all the blame upon himself; but the first officer at any rate shared with him the discredit of having written the log entries, which were manifestly so incorrect that the Court had to discard them altogether; nor did the evidence of the master and the first officer help matters much. One thing was clear therefrom, that, from the time the Hare island light was sighted till her course was altered at midnight, no observations were taken to verify the exact position of the barque or her distance from the light, and no record of her speed had been kept. It was the more essential that this should have been done, because the night was dark and hazy and the coast unknown; and the first officer admitted that he obtained soundings before midnight in casts made by himself, which alone should have induced him to navigate with the utmost caution. The Court had made due allowance for the Admiralty chart—a small scale chart of the coast—of the East coast of India from Cape Comorin to Cocanada, published in May 1877, on which the master worked; but even admitting to the full extent that through no fault of his own the master was ill-supplied with proper charts for the purpose of bringing the barque to a safe anchorage, he was all the more bound to take all other precautions within his means; and it was shown that just through neglect of those means he had so utterly misjudged his position at midnight that he fancied himself to be 8 or 9 miles off, when he was in reality less than 4 miles. Then, being so ill-supplied with charts, having scarcely ascertained his position, was the master justified in heading for the light at midnight and pursuing that course after the water had begun to shoal? He said in his evidence that he had just thought of bringing up when the vessel struck the rocky ledge. The Court observed that that idea should certainly have entered his mind sooner. The Court went further and said, that it was his duty, when he got into 6 fathoms, to have at once rounded the vessel to and brought her to anchor in Tuticorin harbour. The Court also noticed the variance between the evidence given by the first officer and an able seaman (this witness had a first officer's certificate, but it had been suspended about nine months ago, *i. e.*, from June 1884), who was in the chains on the night of the 17th and morning of the 18th, as to the proper amount of allowance made at each cast of the lead. The first officer stated that the practice was to allow 14′, and the able seaman, who was in the chains from the midnight and at the time of the casualty, allowed 8′. The Court recorded that it would have been satisfactory if it could have been shown that the master had once at least himself personally attended to the casting of the lead. The master was also considered to have been wrong in ever having allowed the watch to go below at midnight. As it was, he admitted that he had to call them up again almost directly. The Court observed that they should not have been allowed to go down. After the accident the master and crew behaved well, and it was only by their untiring exertions, powerfully backed by the assistance which came from the shore, that the vessel's safety was secured, and the Court had no blame to find on that score. The evidence also showed that the master had an excellent character for sobriety, and that he never left the deck from 6 o'clock on the evening of the 7th till the *Glanperis* went aground. On the whole the Court found that the barque was not navigated in a proper and seamanlike manner, approaching as she was a port unknown to the master or any of her crew; but taking into consideration the circumstances that the night was hazy, and the master was ill-supplied with proper charts, and that he bore an excellent character for sobriety, and the barque was found to have

sustained no material damage, the Court were not disposed to frame any charge against him, being of opinion that the case would be met by his being severely reprimanded and admonished to be more careful in future. The Court farther observed that the first officer was deserving of censure for the negligent manner in which the entries had been made in the log-book. The Court accordingly severely admonished the master and the first officer and returned to them their respective certificates.]

The President, in forwarding the report of the Court of Inquiry in the above case, remarked that he waited some time to obtain the attendance of a ship-master if possible; but failing such a one, the Court, consisting of himself and the Port Officer, held that the Merchant Shipping Act empowered them to take as assessor for all proceedings under section 7, any one acquainted with maritime affairs, and in that view they procured the consent of a person, who was the representative of Lloyds' Agents, to sit with them. The President trusted that the Government would approve of their act and confirm the finding of the Court.

The Governor of Madras, on examining the proceedings of the Court, observed that there appeared to be reasons for deeming them invalid in respect of the following points:—*First,* because, when the investigation appeared likely to involve a question as to the cancelling or suspension of one or more of the certificates, the Court omitted to appoint *two* assessors under section 13 of the Act; and *secondly,* because the Court had of its own authority assembled otherwise than under the order of Government specifically directing the Court to assemble. The Government Solicitor was, therefore, asked to obtain the opinion of the Hon'ble the Advocate General on the irregularities noted above. The Hon'ble the Advocate General's opinion, which had since been submitted by the Government Solicitor, was to the effect that the proceedings recorded in the matter of the grounding of the barque *Glanperis* were taken before a Court which had no legal existence and was not properly constituted, and were, therefore, void and of no effect. Looking at the words in section 7 of the Act, he considered that the orders of the Government ought not only to declare that a Special Court should be constituted, but should also actually appoint the constituent members. In the present case, there was no such order, and even if a Special Court had ever been brought into existence, it was not properly constituted for the particular case; because, though purporting to act under the imperative directions of the first part of section 13, they never adopted *two* assessors. On a full consideration of the circumstances of the case, it seemed to the Governor of Madras that the proceedings taken in the matter of the grounding of the *Glanperis* were null and of no effect. It was to be regretted that the District Magistrate, an officer of so high a standing, should have displayed such want of acquaintance with the provisions of the Indian Merchant Shipping Act. In the circumstances, however, it appeared unnecessary to proceed further in the matter, and the Governor of Madras directed that copies of those proceedings be communicated to District Magistrates of all coast districts for information and guidance.

The Registrar of Wrecks, Calcutta, observed with regard to the remarks of the Government of Madras, that in the case of a casualty happening to a ship by the wilful neglect or default of her master, but without being followed by serious damage to the ship itself, or loss of life, his certificate could not be suspended or cancelled upon a formal investigation conducted under the 8th part of the Merchant Shipping Act of 1854. He must be tried under section 241, or the equivalent sections in the Indian Acts, in Marsden's Law and Practice relating to formal investigations, &c.

47. The British iron screw steamer PESHWA [of Liverpool, 1,399 tons register, official number 81350], from Calcutta to Bombay, in water ballast. On

the 18th February the steamer proceeded down the Hooghly river up to Garden reach in charge of an assistant harbour master; at 9 A.M. he was relieved by a pilot off the Botanical gardens ghât. The pilot, whilst in that locality, observed that the reach was occupied by no less than seven vessels, six being below the *Peshwa* and one above. The pilot weighed and on passing the ship *Jumna* (also outward bound) in tow of the tug *Challenge,* apparently brought up off Camberbatche's point, the assistant harbour master in charge hailed the pilot, asking whether he was going to turn the *Peshwa* above the *Jumna.* On replying in the affirmative, the assistant harbour master indicated by a sign that he understood the pilot, whereupon the latter concluded that the *Jumna* would remain where she was, and ride with a sheer towards the gardens so as to give the steamer *Peshwa* as much room as possible to pass down on the *Jumna's* starboard side. When the steamer was athwart between the two Lower Bishops' College sand buoys, the pilot noticed the *Jumna* sheer to starboard as if she was dropping down. He had the *Jumna's* port side broad open; and as the position gave him very little time to think, as also the *Peshwa* was too far round to recover herself, he continued to reverse the engines at a risk of fouling the Lower Bishops' College sand buoy, in preference to clearing it and risking a collision, as the pilot had to ensure coming so nearly head down the river as to make it practicable to pass on either side of the *Jumna* the next time the engines were moved ahead. The *Peshwa,* whilst turning thus, came into collision with the Lower Bishops' College sand buoy off Camberbatche's point; the buoy passed under the steamer's bottom some distance before the propeller—the engines being stopped. No damage to the *Peshwa.* No damage to the buoy. No loss of life.

The Port Officer recorded that the reports given by the assistant harbour master and the pilot of the ship *Jumna,* were not quite accordant, but there was no doubt that the reach was full of vessels, and the pilot of the *Peshwa's* action was doubtless to some extent influenced by their influence. But the Port Officer did not accept the pilot's excuse as a sufficient one, and considered that he had committed an error of judgment in backing too far over towards the Bishops' College sand buoys, and should be warned to be more careful, as such an accident as the present one might lead to the loss of a vessel. On this occasion no Departmental Committee of Inquiry was held, as no damage resulted.

The Lieutenant-Governor of Bengal remarked that as no damage was done in the case under notice, His Honour accepted the Port Officer's recommendation, and directed that the pilot be warned to be more careful in future.

48. The British iron screw steamer CHILKA [of Glasgow, 1,450 tons register, official number 80424], from Maulmain to Bombay *viâ* Madras coast ports, with 113 passengers and a cargo of teak timber. It appeared that the pilot weighed from Múpún at 5-50 A.M. on the morning of the 19th February, and proceeded down the Maulmain or Salween river (Burma coast). On arriving at the usual anchorage below Natmaw, the ebb-tide had made, and the pilot noticed the tide gauge showed 12′; which would not permit of the steamer crossing the Amelia channel as she was drawing 22′ 5″; the pilot therefore let go the starboard anchor with 35 fathoms of cable, at 6-50 A.M. abreast the tide gauge (the best berth in the Natmaw anchorage) in mid-channel in $7\frac{1}{2}$ fathoms of water. The vessel was riding at single anchor waiting for the afternoon tide. The weather at the time was clear, with light South-Easterly breeze. At 10-10 A.M. the steamer suddenly took a heavy sheer to the westward, and although the pilot and a seacunnie, who were on the bridge, immediately put the helm hard-a-port (the pilot himself taking the wheel), she refused to obey it, and dragging the anchor, the *Chilka's* stern took the bank below Natmaw point in soft mud. A boat was then lowered to sound round the steamer, $3\frac{1}{4}$ fathoms were found forward, $4\frac{1}{4}$ fathoms amidships, and at the stern $4\frac{1}{4}$ fathoms. At 1-45 P.M. the tide began to make, and half an hour afterwards the pilot, finding there was a

gentle breeze from the S. W., hoisted the spanker and put the helm a starboard. At 2-30 P.M. the *Chilka* floated without assistance and swung to the flood without rolling, just as if she had been anchored in the stream. During the time the vessel was ashore she remained perfectly upright and straight to the tide, and had in no way listed over, although she was 4′ in the mud from the stem to a little before the mainmast. At 3-25 P.M. the pilot weighed anchor, and the vessel making no water, with the consent of the master he proceeded with her to sea in safety, passing the Patch buoy at 6-18 P.M. She was aground for 4½ hours. No damage to the *Chilka*. No loss of cargo. No loss of life.

The Port Officer, Maulmain, recorded that from the particulars contained in the reports received from the master and the pilot of the steamer, and from enquiries instituted in the case, he was of opinion that the grounding of the *Chilka* was an accident, and that therefore he was not desirous of preferring a charge against the pilot, who, he considered, was not to blame in the matter.

The Officiating Commissioner, Tenasserim Division, thereupon observed that the pilot had anchored the steamer in such a position that she took the ground, but whether such grounding was purely accidental or not, was not manifest. At present there was a *primâ facie* case against the pilot for having caused the casualty either from having anchored the vessel in an improper situation or from having done so in a wrong manner, or from some other cause. He therefore considered that a regular inquiry into the matter was necessary.

The Port Officer replied that the Agents of the British India Steam Navigation Company reported that there was no prospect of the *Chilka* returning to Maulmain shortly. From the particulars contained in the pilot's report, the Port Officer was of opinion that he took every precaution, in the *first* place in bringing the steamer to an anchor in the recognized anchorage at Natmaw, which was corroborated by the master's report, and *secondly,* in giving her a sufficient scope of cable and by having a man in attendance at the wheel on the bridge where he remained himself. Cases had occurred at Maulmain where, in the absence of such measures, vessels had met with more serious accidents. Beyond the reports of the pilot and the master of the *Chilka* there was no evidence to produce before a Court, and that the pilot had the reputation of being a careful and skilful pilot.

The Officiating Commissioner, Tenasserim Division, ordered under Rule XXVI of the Maulmain Pilot rules, that a trial be held to enquire into the conduct of the pilot of having caused the above vessel to ground. The Government Prosecutor was requested to produce evidence concerning the character of the anchorage selected by the pilot. If it was impossible to anchor a steamer in the position in which the *Chilka* was without risk of running her aground, it remained for the pilot to show that he was justified in having anchored in so dangerous a spot. *Primâ facie* the pilot was responsible for putting the vessel ashore. It rested with him, to explain why he anchored the vessel in a place where she was liable to get aground; why he did not choose some other anchorage; and why he did not moor the steamer or take other precautions against casualties? The evidence of the River Surveyor, the pilots, and other persons acquainted with the Maulmain river and its channels should be offered, and able to prove what was the prudent and correct course for the pilot in that case to pursue.

[A Court of Inquiry was held in the office of the Port Officer, Maulmain, on the 13th March, by the Assistant Commissioner, Amherst, under Rule XXVI of the Maulmain Pilot rules, for the purpose of investigating the circumstances attending the casualty to the *Chilka.* The Court recorded that, having assembled pursuant to citation, the defendant (a licensed pilot of the port of Maulmain) was called, and it was explained to him that the Court assembled was to a certain degree an informal one owing to no merchant (as a member of the Court) being

present. The accused was asked whether he objected to the Court as at present constituted, and stated that he had no objection to the Court as constituted. The replies of two pilots (who were cited as members of the Court) intimating their inability to attend in consequence of business engagements, were laid before the Court by the Government Prosecutor, together with the papers and correspondence embodying the statement of the case. A sketch of the spot, showing where the *Chilka* anchored, was, after having been inspected by the President and members, filed. The Prosecutor then read Pilot Notice No. 263 of 16th April 1884, regarding the Natmaw anchorage, headed Amelia channel, after which the Court ordered the trial to proceed. The Court recorded that three full draught pilots (who were called as witnesses for the prosecution) agreed that there was a safe anchorage at Natmaw for vessels drawing 22′ abreast of the tide gauge nearly in mid-channel; that either a sailing vessel or steamer lying there for one tide should have from 30 to 45 fathoms of cable out, as she would be in 28 to 30′ at low-water, and with that quantity of chain out she would have plenty of room to swing. It seemed that it was not customary to moor a vessel with two anchors. The precautions to be taken, when lying at single anchor, were for the pilot to keep a good look-out either on the deck or on the bridge, and a man at the wheel; and that if the vessel did sheer about, she should be steadied with the helm; but if nothing unusual happened, the pilot could go below, provided he kept an officer on the look-out who would call him when necessary. It was alleged that if a vessel at the Natmaw anchorage took a sheer to the westward, his only endeavour would be to steady her, *i. e.*, lying to the ebb-tide, the helm should be put hard-a-port; nothing further could be done unless there was a breeze from the westward, off the land, when the forestaysail should be hoisted with the sheet to windward. It was proved that the *Chilka* had a staysail, whereas some steamships had not. It would be prudent to moor a vessel in narrow channels, but in the Salween river it was never done, as it was unnecessary. Witnesses were of opinion that if a vessel had 7 fathoms of water, they would not have kept steam up. The defendant alleged, that before the *Chilka* took the sheer there was 6 fathoms of water, and considered that 4 fathoms would have been sufficient. There was a staysail on board at the time she sheered, but there being no wind, it was not made ready to hoist; there was also no steam up, and the fires were banked. The sea was smooth and the vessel was riding steadily at anchor with 35 fathoms of cable out. The defendant attributed the accident to a sudden change of eddy-tide. The witnesses for the prosecution were called, sworn, and examined, and on conclusion of their evidence the Court observed, that it seemed that an examination of the defendant was unnecessary. The River Surveyor was not in attendance in consequence of his being away from Maulmain on duty, and the evidence of those full draught pilots was considered sufficient. The accused was present in Court during the whole of the proceedings, and had full opportunity of cross-examining the witnesses called by the prosecution. He called no witnesses, but stated that it was not the rule to moor a vessel in the Maulmain river for a single day tide; at night he should moor a heavy draught vessel. His pilotage of the *Chilka* was all, in his opinion, that was right, and consequently did not think that any blame was to be attached to him because the steamer sheered. The Court then directed the parties to withdraw, in order that they might consider their finding and order. The Prosecutor handed to the Court the defendant's defaulter sheet, and stated that the accused had been a pilot on the Maulmain river for some 27 years, and gave it, as his opinion, that it was not a discreditable defaulter sheet. The Court, after having duly considered all that had been laid before them and elicited in evidence, were of opinion that, so far as could be judged from the evidence recorded, no blame could be attached to the defendant. The pilot was therefore acquitted.]

The Officiating Commissioner, Tenasserim Division, remarked that the Court of Inquiry had arrived at the conclusion that no blame could be attached to the defendant. The grounds for that finding were not set forth, but it was gathered that they were that the pilot anchored the steamer *Chilka* in a recognized anchorage and took the usual precautions for her safety. From the evidence produced it seemed that the berth of the steamer was regarded as a safe anchorage, and that it was not customary to moor vessels when waiting for one tide. It also appeared that the pilot was at his post, and did what was proper to prevent the *Chikla* from taking the ground. The pilot's defaulter sheet was fairly clean, considering the length of his service; under those circumstances, it was not necessary to punish the pilot for the casualty. The Officiating Commissioner observed that the result of the Court was, however, unsatisfactory. It showed that what was regarded as a safe anchorage by the pilots and the Marine authorities, was not safe at all under the practice which prevailed of keeping vessels there at single anchor; there was no guarantee that any vessel so anchored in that part of the Maulmain river might not suddenly take the ground in the same way as the *Chilka*. Under those conditions it was an abuse of terms to call the anchorage *safe*. If a vessel was liable at a moment to run aground in her berth without any one being held in fault, that berth was certainly not a safe one. The Officiating Commissioner, therefore, ordered that the Pilot Instructions be revised in such a way as to prevent the future occurrence of such a casualty with impunity. Either that that anchorage should not be used at all, or if it was used, precautions must be taken either by mooring or otherwise, which would make it impossible for vessels to ground. The Officiating Commissioner observed that if on any future occasion it should be impossible to obtain the services of a merchant to constitute a Court in the manner prescribed in Pilot Rule XXVI, it would be convenient that the matter should be referred for orders.

The Port Officer, Maulmain, recorded that he had duly issued a notice to pilots, warning them of the necessity of mooring when bringing up at the Natmaw anchorage with deeply laden vessels during the spring tides. After the evidence adduced from the three full draught pilots (who were examined as experts by the Court), it was considered necessary, even without such instructions from the Officiating Commissioner, Tenasserim Division, to direct the attention of pilots to the necessity of mooring heavy draught vessels not only at Natmaw, but at Halfway creek and other anchorages whenever there was any liability of their sheering to such an extent as to drag at single anchor. This the Port Officer hoped would prevent any similar accidents to that of the steamer *Chilka,* which (in the absence of any evidence to the contrary) was presumed to have been anchored in a safe berth. It was not thought that any changes (as none had been reported by the pilots) had taken place in that anchorage, which was a most convenient one and frequently used; whilst the River Surveyor, who was requested to examine it, reported no changes since the issue of the notice of the 16th April 1884.

49. The British Indian muchwa SURYABAN [of Basseen, 7 tons register, official number 3054], from Bhiwndi to Bombay, with a cargo of khair-wood. On the 19th February the muchwa was anchored in Thána creek, Bombay harbour, when at 4 A.M., owing to the strong ebb-tide, she dragged her anchor and struck against one of the piles of the Kulwa Railway bridge and capsized. She was subsequently recovered with little or no damage. Slight damage to the cargo. The crew were picked up in a toney sent from the shore.

50 The British iron ship MAIN [of London, 1,691 tons register, official number not known], from Calcutta to Fiji, with 673 emigrants. On the 20th February the ship, in charge of a pilot and in tow of the tug steamer *Court Hey,* was proceeding down the Hooghly river; at 6-30 P. M., whilst the pilot was turning the ship round for the purpose of anchoring at Kalpi, the *Main's* pennant

fouled the starboard anchor, and slipping off it parted, thus causing the anchor to swing in and the fluke of the anchor bulged one of the bow plates, slightly cracking it inside about 10′ above the water's edge. The damage being of no consequence, only a slight surface crack inside, the pilot, with the consent of the master, took the vessel down the river. No damage to the ship or cargo. No loss of life. (This casualty was accidental; the damage done was very slight, the so called crack not extending through the plate.)

51. The British iron screw steamer KREMLIN [of Glasgow, 763 tons register, official number 80438], from Maulmain to Port Said, with a cargo of rice. At 5-30 A.M. on the morning of the 21st February the steamer under pilotage charge weighed anchor and started from Maulmain, as near as the pilot could recollect; and proceeded down the Salween river. There was a conflict of evidence between the statements of the master and the pilot in respect to the time when the vessel did actually start from town. The master positively stated that it was at 6-15 o'clock, on the morning in question, and that it was an hour after the flood tide; whereas all the chief members of his crew disagreed with him. From the evidence of the witnesses it seemed that it was the first quarter flood when the steamer proceeded down the Salween river; the weather fine, but rather foggy. On the vessel arriving at 7-45 A.M. at Halfway creek the pilot stated that he sighted the steamship *Africa* lying at anchor across the tide, from which he concluded that it was slack water, but afterwards found that there was water enough for the *Africa* to have gone to sea, and which she could have done within an hour from that time. The master was on the bridge most of the time, leaving it for a few minutes only to have a wash and write a letter to the owners. There was the second officer with the pilot on the bridge, and the first officer and one man on the look-out on the forecastle head. The *Kremlin* thus continued on her voyage until about 9-15 A.M., when between the Reef and the Patch buoys, and the eddy-tide, which ran very strong at that locality, caught the vessel forward and set her to the southward. Whereupon the pilot immediately put her helm hard-a-port in order to prevent her from taking a sheer, but before she could properly recover herself, the *Kremlin* within three minutes touched the ground very slightly on the Long Stones reefs, entrance to the Salween or Maulmain river, Gulf of Martaban (Burma coast), but never lost her steerage way. After proceeding for 8 minutes the steamer again grounded, but on this occasion a little heavily on the port side, and slightly heeled over against the tide to the starboard. The first officer in his evidence stated, that between 5 and 6 minutes afterwards the steamer again struck more severely than before. He swore that the vessel on touching the ground on the second occasion nearly stopped, then rolled over to the starboard, and then to port, and then went ahead. This latter witness and the second officer both corroborated the assertion of the master that the vessel first careened heavily over to starboard and then to port. The second officer stated that on the second occasion the helm was put hard-a-port and the engines stopped at 9-27 A.M., when the vessel cleared herself, and having regained her position, the engines were ordered full speed ahead, and 20 minutes afterwards, after having discharged the pilot, she safely proceeded on her passage. The pumps were immediately sounded and the vessel was reported to be then making no water, but subsequently, at about 5-45 P.M., the same evening, the carpenter found 18″ of water in the wells. The master then set on the pumps and went dead slow. At 8 P.M., the water gained on her, and there being then 2′ 6″ in the fore hold, the master, for the safety of the steamer and cargo, deemed it expedient to keep away for Rangoon, at which port he arrived on the afternoon of the next day. The pilot stated that he took no bearings, but that after porting the helm the Patch buoy was about 2 points on the port

bow and the Reef buoy right astern. At the time of the casualty there was a 6-knot tide running, and the steamer was proceeding at 9 knots an hour. The pilot alleged that the British India Steam Navigation Company's steamers always go out in one tide; that the *Kremlin* was steering very well; that he was quite satisfied that there was no risk; that there was no altercation between the master and himself on the way down the river; that the master did not urge him to proceed against his judgment, and that the master did tell him not to run any risk. The pilot swore that before starting that morning he spoke to the master about bringing the vessel up at Halfway creek, thereupon the master said that the harbour master told him that there was sufficient water, and that his steamer could go out. The master denied the assertion made by the pilot, that he ever had at any time expressed a wish to anchor at Halfway creek, the only thing that the pilot did speak to the master was to tell him to order the engineer to "give her all he could." The master positively stated that after the steamer grounded the first time he asked the pilot to come to, but no order was given to alter the course. The master in his evidence stated that, as far as he could judge from the buoys, the vessel was in the channel. The chief point of conflict was as to the place where the *Kremlin* grounded; the pilot stated that it was between the Reef and the Patch buoys, whereas it was stated by the master that it was 300 yards off the Reef buoy—that buoy being about 2 points before the port beam. The first officer was positive that the Reef buoy was 200 yards distant ahead and on the port bow 2 or 3 points. This witness further stated, that he did not notice any buoy astern, but saw the Reef of rocks extending to the black buoy, parts of the reefs being then visible. The second officer deposed that he sighted a black buoy 3 to 4 points on the port bow, about 300 yards distant, some rocks near the black buoy were partly bare and were abaft the vessel's beam. The pilot stated that the danger marked on the charts as "*Rock reported*" was not buoyed, although it had only 11′ of water over it at low-water spring tides. He said that he did not exactly know its position, and consequently had to judge the place. The Surveyor to Lloyds' Agents accompanied by a Marine Surveyor boarded the steamer *Kremlin* on the 24th February, then lying in the Rangoon river with all her cargo on board, for the purpose of examining the nature and extent of the damage she had sustained through and in consequence of her having struck twice on the Long Stones reefs whilst proceeding down the Maulmain river. After surveying the vessel's bottom it was found that there were two holes on the starboard side; the plates were cracked all along from the after part of the forecastle to the fore part of the bridge; and they were dented in, more or less, all along. The Surveyors were of opinion that there was no possibility of this damage having been done at any time except when she grounded in the Maulmain river. They advised that the cargo be immediately and completely discharged, and that the vessel be placed on the gridiron for further examination. On the 2nd and 3rd March the Surveyors reported that they had surveyed the vessel, and found she was lying dry on the blocks at Mr. Hopper's gridiron at Dalla, where she had been placed for convenience of survey in accordance with their advice. They reported that at the master's request they examined the steamer on the hard, but owing to her being so very much over on starboard bilge, they were unable to get underneath her. On a careful examination being made, it was detected that for about 24′ of the garboard strake the butts and rivets were started and strained; one plate on the second strake fractured in five places; about 120′ of the same strake, the rivets, the butts, and the landings were strained and the plates more or less bent between the frames; 69′ of the third strake and 49′ of the fourth strake, the butts, the rivets, and the landings were all, more or less, started and strained. As there were no facilities

at Rangoon for renewing the damaged plates or effecting permanent repairs, the Surveyor advised that the two larger fractures be covered with over-all patches properly rivetted or fastened with tap bolts and caulked; that the smaller fracture be caulked and made tight, and that the steamer after completion of those repairs, should proceed in ballast either to Singapur or Calcutta—the two nearest ports where dry docks were available, and where permanent repairs could be effected. The rice landed from the steamer *Kremlin* between the 25th February and 14th March, and lying in the godowns of Messrs. Stewart Allen & Co.'s mills in the Pegu river, was surveyed on the 17th March. It was found that 11,517 bags, more or less, were in apparently sound condition and fit to be re-shipped; 290 bags, more or less, were damaged by water and showed signs of heating, and were therefore recommended to be sold by auction, as soon as possible, for the benefit of all concerned; 1,041 bags, more or less, were very badly damaged by water, the rice in some of them having become caked, and all being mouldy and rotten; these latter also were advised to be sold by auction at once for the benefit of all concerned. The *Kremlin* was again surveyed on the 22nd and 23rd March, in order to report on the temporary repairs effected on the vessel. On the 22nd the steamer was examined and found dry on the blocks at Hopper's gridiron at Dalla, and on the 23rd they again visited her afloat. The Surveyors reported that on careful examination it was discovered that the fracture and bent plates in the second strake had been covered by new iron plates of $\frac{5}{8}$″ by 23″ long rivetted through the old holes with $\frac{3}{4}$″ rivets and properly caulked; the started butts and rivets in the other strakes had been caulked, and that the vessel was then making no water. They therefore were satisfied that the temporary repairs which had been effected were sufficient, and had been well done. They considered that the steamer, in their opinion, was quite fit to carry the sound portion of her original cargo to its port of destination. The cargo in the meantime was re-shipped, after which the vessel proceeded from Rangoon on the 29th March for Europe. Value of damage to the *Kremlin*, £1,588; cargo, ₹3,327. Of the cargo on board, 1,331 bags were damaged, which were sold by auction and realized ₹323. No loss of life.

[A Special Court of Inquiry was held in the Deputy Commissioner's Court, Rangoon, on the 6th March, by the Deputy Commissioner, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances attending the grounding of the above steamer twice in the Maulmain or Salween river. The Court having assembled, the papers, relating to the declaration that a Special Court should be constituted, were read. The Government Prosecutor produced the witnesses, after which they were sworn and examined by the Court. The Court recorded that after a full consideration of the evidence in the case, they were of opinion that the steamer *Kremlin* struck in the channel at the entrance to the Salween river, on a rock marked on the Admiralty charts as "*Rock reported*" near the Reef buoy. The Court were also of opinion that that rock should be properly surveyed and marked out. They were unable to find whether any fault rested with the pilot, as the water in the channel was amply sufficient for the steamer to have proceeded to sea. The position where the casualty occurred had been clearly defined by the master and his officers, and the Court observed that there could be no doubt that the position denoted by the Port Officer, Maulmain, was not the position where that steamer grounded. The Court accordingly absolved the pilot from all blame.]

The Officiating Commissioner of the Tenasserim Division observed from the report of the Port Officer, Maulmain, that the *Kremlin*, instead of proceeding on her voyage to Europe, put into Rangoon in a leaky condition, so that it would appear that she had sustained material damage. There was not the

slightest doubt, even upon the face of the pilot's report, that the steamer (which was drawing nearly 20′) was proceeding to sea far too late on the ebb-tide, and when it was, to say the least of it, a very hazardous undertaking, owing to the strong cross tidal currents and eddy-tides which set between the Amherst reefs and the Godwin sands, to keep the vessel in the channel. The Port Officer reported that he could produce quite sufficient evidence for the purpose of an inquiry even without the attendance of the master and the officers of the *Kremlin* for, besides the pilot of the steam-ship *Africa* (which vessel was anchored at Halfway creek when the *Kremlin* passed down), he had the evidence of the River Surveyor and crew of the buoy vessel (which was lying at anchor at the time off one of the Godwin's sand buoys) who witnessed the accident. But besides this it was alleged that, from the statement of the pilot (in reply to the Port Officer's query as to why he had run such a risk), the casualty was due to the conduct of the master of the vessel in compelling the pilot by means of threats to proceed to sea. Under those circumstances it might perhaps appear to the Local Government requisite or expedient to direct a formal investigation into the matter. It farther seemed necessary that the pilot should be placed upon his trial for grounding the steamer under Rule XXVI of the Maulmain Pilot rules; the trial should be conducted at Maulmain, and the attendance of the first officer and the steersman of the *Kremlin* would be required. If the master was to be proceeded against, the evidence of the pilot would be needed.

The Chief Commissioner of British Burma after having perused the papers in the Special Court of Inquiry, remarked that should the Officiating Commissioner of the Tenasserim Division deem it necessary to hold an inquiry under the Maulmain Pilot rules concerning the conduct of the pilot who was in charge of the vessel, and should the attendance of any of the officers or crew of the *Kremlin* be required, he should communicate direct with the Port Officer, Rangoon. The Chief Commissioner directed that steps be taken without delay to have the position of the rock, which was mentioned in the course of the inquiry, ascertained and clearly marked.

The Officiating Commissioner of the Tenasserim Division ordered, under Rule XXVI of the Maulmain Pilot rules, that a new trial be held to inquire into the charge made against the pilot of having caused the steam-ship *Kremlin* to ground twice in the Maulmain river. He observed that if the proceedings of the Special Court of Inquiry were laid before the Court then to be assembled, the attendance of any of the officers or crew of the *Kremlin* might perhaps be dispensed with.

[The case was again tried *de novo* by the Assistant Commissioner Amherst, in the Court of the Assistant Commissioner, Maulmain, on the 27th March, under Rule XXVI of the Maulmain Pilot rules. The Court recorded that, having assembled pursuant to citation, the pilot was called and the papers and correspondence embodying the statement of the case, as also the Commissioner of Tenasserim's order directing assembly of a Court, were laid before the Court by the Government Prosecutor. He also submitted to the President the proceedings of the Rangoon Special Court of Inquiry held on the 2nd March, under section 7 of the Indian Merchant Shipping Act, to investigate the cause of the grounding of the steamer *Kremlin*, which vessel put into that port on the 22nd February in a leaky condition. The Prosecutor also handed to the President a letter to his address by the pilot, stating that he did not wish for any farther inquiry than that held at Rangoon, and would abide by any orders passed by the Commissioner, Tenasserim Division; the Prosecutor explained to the Court that he had informed the pilot that a Court of Inquiry had been ordered, and that he (the Prosecutor) was unable to recommend the case being disposed of by the Commissioner, Tenasserim Division, on the Prosecutor's

report. The Court recorded that the pilot was charged with carelessness and neglect of duty in having allowed the steamer to be kept underweigh at too late a stage of the ebb-tide, whereby she took the ground *first* on the Godwin's sands, and *secondly* on a rock or rocks in the vicinity of the Patch and Reef buoys, at the entrance to the Maulmain or Salween river, when outward bound under his pilotage charge on the 21st February. The statement of the grounds upon which such charges were framed was then read to the pilot by the Prosecutor. The defendant was asked whether he pleaded guilty or not guilty to the charge. He pleaded guilty, and stated that he had nothing to urge in his defence. The Court observed that after having duly considered all that had been brought before them, and inspected the pilot's defaulter's sheet, which recorded ten previous convictions, were of opinion that the defendant was guilty of carelessness and neglect of duty. The Prosecutor having informed the Court that the accused had earned nothing for over a month awaiting this investigation, the Court recommended that the pilot be reduced from full draught to 16′ for a period of five months.]

The Officiating Commissioner, Tenasserim Division, remarked that the proceedings stated that the pilot was charged with carelessness and neglect of duty in having allowed the *Kremlin* to be kept underweigh at too late a stage of the ebb-tide, whereby she took the ground *first* on the Godwin's sands, and *secondly,* on a rock or rocks in the vicinity of the Patch and Reef buoys. To that charge it was recorded that the defendant pleaded guilty, and that, he added, he had nothing to urge in his defence. The Court of Inquiry, therefore, after inspecting the pilot's defaulter sheet, recommended that his license be reduced from full draught to 16′ for a period of five months, — that period apparently being fixed on because the defendant had already earned nothing for over a month. The Officiating Commissioner, Tenasserim Division, observed that the Special Court of Inquiry held at Rangoon under the Indian Merchant Shipping Act, respecting the casualty to the *Kremlin*, were unable to find that any fault rested with the pilot, as the water in the channel was amply sufficient for the steamer to have proceeded to sea. The pilot by having pleaded guilty had, however, expressed his dissent from that finding. The vessel struck the ground not once but twice, and in the absence of reasonable excuse the defendant must be held to blame for such grounding. It appeared clear that the casualty was due to the pilot taking the vessel to sea at a time of the tide when it was dangerous for a steamer of the draught of the *Kremlin* to leave the Salween river. That the pilot was well aware of the danger of the course he was taking seemed evident from the letter submitted by the Port Officer, Maulmain, in which he stated that the pilot made a statement, in reply to his query, as to why he had run such a risk, to the effect that when he was about to bring up at the usual Halfway creek anchorage he was not only urged to proceed, but threatened by the master, and eventually did consent to take the vessel to sea. The pilot was farther guilty of a breach of duty in having reported only one of the two groundings which took place. The pilot's defaulter sheet showed that on six occasions he was reprimanded, admonished, cautioned or directed, to be more careful ; on one occasion his license was suspended, and on three occasions his license draught was reduced. The Officiating Commissioner, Tenasserim Division, observed that under those circumstances it was a question whether the penalty recommended by the Maulmain Court could be deemed adequate. The Officiating Commissioner, Tenasserim Division, however, accepted the Court's recommendation, and gave effect to it by directing that the pilot's license be reduced from full draught to a draught of 16′ for six months from the date of the casualty to the steam-ship *Kremlin.*

The Port Officer, Maulmain, reported that the position of the rock which was mentioned in the course of the Special Court of Inquiry held at Rangoon,

and supposed by the Court to have been the one on which the *Kremlin* struck, was duly ascertained and reported by him in October 1881, and the position of the danger entered on the chart of the Maulmain river. Intimation regarding that rock, with the depth of water over it, &c., had been duly given, who were well aware of its existence ; and from the correspondence with the Superintendent of Marine Surveys in 1881, it was therein explained that it was impossible to buoy that danger. The rock, with a view to its removal by dynamite, was examined by divers from Rangoon, but the Public Works Department considered that, in order to form an estimate of what the cost of removing the danger would be, the employment of a diver experienced in the use of dynamite was necessary. Such a man was employed on Railway work at Rangoon, but his services could not be spared. Subsequently it was learnt that a diver was procurable at Maulmain, but no arrangements were made with him to undertake the work, on the grounds that no great necessity existed for the removal of the rock, as vessels other than those of very light draught never entered the Maulmain river until the reefs off Amherst point were covered, when there were 23′ over the rocks. The Port Officer, however, was still on the look-out to have that obstacle removed, and would take advantage of any opportunity that might offer to have the place examined and a proper estimate prepared for the removal of the danger, if possible, by dynamite.

The Officiating Commissioner, Tenasserim Division, thereupon desired to be furnished with a chart showing the position of the rock to which the letter of the Port Officer, Maulmain, referred, as well as the place where the steamship *Kremlin* grounded, and explaining, if possible, how the Special Court of Inquiry at Rangoon came to mistake the one spot for the other.

The Port Officer, Maulmain, replied that in steering down through the intricate passage at the entrance to the Maulmain river at the stage of the tide when the *Kremlin* passed out, there would be nothing to prevent her striking on the spot where the Rangoon Court supposed her to have touched, for, as previously explained, that rock would not be buoyed ; and although it was within the defined channel, it was not a source of danger to vessels which, irrespective of its existence, would not enter or leave the river with the reefs off Amherst uncovered; whilst there was the same water on it as on the place where it was denoted that the steamer struck. The pilot's report and his verbal explanation made to the Port Officer, was that, when between the Reef and the Patch buoys, the *Kremlin* was caught by the eddy-tide and sheered against her helm to the southward, did not disagree with the evidence he had given before the Rangoon Court, *viz.*, that the steamer grounded between the Reef and the Patch buoys, the latter being about two points on the port bow, and the Reef buoy after porting the helm right astern. The position of the spot regarding the *first* grounding near the red or Godwin's sand buoy had been given in reply to a telegram from the Port Officer, Rangoon, but it was only determined, as explained by the pilot, who made no report or statement to the Port Officer, Maulmain, until he appeared before the Rangoon Court. The statements of the master and his officers besides not being sufficiently explicit, could scarcely be reconciled with each other as to the second grounding ; whilst, if the direction of the vessel's head by compass had been given, it would have enabled the Port Officer of Maulmain to show where the steamer did actually strike the ground. The Port Officer said that the Rangoon inquiry was simply an investigation, under the Indian Merchant Shipping Act of 1883, into the cause of the *Kremlin* having put into that port in a leaky condition; but that that Court had, on the mere statements of the master and officers and the pilot of the steamer, and unassisted by any one of local experience, to produce evidence or explain in what way the pilot was to be blamed, recorded a verdict in favour of the pilot. The pilot, in his evidence before the first named Court, stated that he thought

he must have got underweigh, as near as he could judge, at about 5-30 A.M., on the first quarter of the flood-tide, or a little more; whilst the master, who spoke definitely as to the time, said that it was 6-15 A.M. and nearly an hour after the flood-tide had made. Both of those statements as to the state of the tide at the time of starting were erroneous. If, as stated by the pilot, the vessel left at 5-30 A.M., it was then after half-flood tide; whilst, if she started at 6-15 A.M., as deposed by the master, it was only an hour before high-water, and therefore the last quarter of the flood-tide. Farther, the pilot's evidence as to the British India Steam Navigation Company's steamers always proceeding out of the Salween river in one tide was entirely incorrect. The light draught mail steamers to Calcutta generally did so, but not those bound to The Straits and elsewhere heavily laden, or with a draught like the *Kremlin* between 19′ and 20′. Although there was good water in the Bheeloo-gyun channel (above Amherst), it was a risk going through it at so late a stage of the tide, and the steamer should have been brought up at the usual anchorage at Halfway creek; whilst in proceeding through the intricate river entrance between the Godwin's sands and the reefs off Amherst point, which vessels should on no account attempt with the Long Stones reefs uncovered, the *Kremlin* grounded *first* on the Godwin's sands and afterwards on either of the spots denoted on the chart where there was 11′ at low-water. The description given in the Marine Survey Indian Hydrographic Notice No. 6 of 1877, resulting from the survey of the Maulmain river entrance, showed what precautions were customary and necessary whilst entering that river on the flood-tide, and the same or greater care was indispensable when leaving on the ebb-tide. Had a copy of that Hydrographic Notice been produced before the Rangoon Inquiry it would perhaps have aided the Court in arriving at a different conclusion.

The Officiating Commissioner, Tenasserim Division, remarked that, from a perusal of the papers in the case, it appeared that the spot where the *Kremlin* grounded was not improbably a different spot from that supposed by the Rangoon Court. In any case, as explained by the Port Officer, Maulmain, the rock mentioned in the course of the inquiry could not be buoyed, although its position had been clearly enough ascertained and marked on the charts. Some attempts had been made towards the removal of that danger, but it was difficult to procure the skilled labour necessary for the purpose. Further efforts would be made to do something more in the matter.

52. The British Indian muchwa SAKERKHADI [of Basseen, 7 tons register, official number 3262], from Agáshi to Bombay, with a cargo of sugarcane and plantains. The muchwa left Agáshi on the morning of the 22nd February, but when off the entrance to the Basseen creek (Bombay coast) met with strong winds, which drove her on to a sand bank, and at noon she capsized. She was afterwards recovered with little or no damage. Cargo, worth ₹45, was lost. The crew swam ashore.

53. The British Indian wooden dhow NASREE [of Bombay, 200 tons register, official number not known], from Bandar 'Abbas to Bombay, with a cargo of dried fruits and spice, value ₹5,086. On the 23rd February the dhow was proceeding along the Mekran coast, and when nearly 3 miles eastward of Jáshak, entrance to the Persian Gulf, she sprung a leak; the crew tried their best to bail the water out, but notwithstanding it gained considerably. At 3 A.M. during a strong N.W. gale, she anchored, but shortly afterwards her anchor parted and she drifted ashore. The crew endeavoured to get her afloat by jettisoning a portion of the cargo, but to no effect; after all the cargo was discharged into boats she came off, and having re-loaded the same again, she continued on her voyage. Value of damage to dhow and cargo not reported. No loss of life.

54. The British iron screw steamer ANCONA [of Greenock, 1,874 tons register official number 76194], from Calcutta to London *viâ* Marseilles, with a general

cargo. On the 22nd February the steamer, in charge of a pilot, proceeded down the Hooghly river, and at 8 P.M. anchored at Kalpi for the night. At 6 A. M. the next day the steamer weighed anchor from the Kalpi anchoring buoy, and was going down the river; at 7 A.M., whilst passing the Auckland bar the pilot sighted 9′ at Kedgeree from above Mud point, but when Kedgeree bore West 8′ went up and continued so, when the vessel grounded at 8 A.M. from 30 yards to a ship's length N. E. of the Upper Western Eden buoy in 21′ of water. The steamer had nearly lost her steerage way, when she passed over. The pilot stated that 8′ continued showing at Kedgeree for 23 minutes after the accident, until the arms of the tidal semaphore could no longer be distinguished. The pilot said that 16′ was last reported in that track, whereas the charts gave 17′ and 18′, and it was therefore evident that there was less water; the pilot did not expect anything less than 22′, and as the tide was falling very slowly, the pilot allowed a difference of 18″—being a very liberal allowance for neap tides—for the water shown at the Kedgeree semaphore. No damage to the steamer or cargo. No loss of life. (The casualty, it was reported, was due to an alteration in the channel.)

55. The British iron ship FALLS OF AFTON [of Glasgow, 1,899 tons register, official number 85918], from Rangoon to Liverpool, with a cargo of rice. On the 25th February the ship was lying at anchor off the Godwin's wharf in the Rangoon river (Burma coast); at 5 P.M. whilst leaving port during a strong flood-tide, owing to the vessel having a foul hawse, the cable parted at 35 fathoms, due to a defective link in the chain, losing the anchor. This second loss of an anchor and chain by the *Falls of Afton* was not replaced previous to her proceeding on her voyage, nor had either been recovered. The value of the lost articles were ₹1,470. No damage to the ship or cargo. No loss of life.

56. The British Indian mahangiri KHOOSALI [of Basseen, 12 tons register, official number 3161, age 52 years], from Bombay to Dantivra, with a cargo of rice. The mahangiri was an old craft, and whilst on her voyage, she sprung a leak on the 26th February owing to her planks having given way. At 4 P.M. she became water-logged, and was ultimately washed ashore some 2 miles off the village of Vasi Gorai near Utan (Bombay coast) and broke up. Loss, value of mahangiri, ₹2,000; cargo slightly damaged to the value of ₹50. No loss of life.

57. The Arabian wooden barque FAIZ RAHAMAN [of Maskat, 558 tons register, no official number], from Calcutta to Maskat, with a cargo of rice. On the 26th February the barque in tow of the tug steamer *Columbus* and in pilotage charge, was proceeding down the Hooghly river. At 2 P.M. she anchored at Hooghly point for the night. Early the next morning (the 27th) she weighed anchor and proceeded on her voyage; at 2 P.M. on that day, whilst in the act of turning round for the purpose of anchoring off the Haldia beacon, and when the steamer was nearly half round, the pilot observed the *Faiz Rahaman* to take a run towards the bank and immediately afterwards to roll; the engines, which were at dead slow, were then ordered to go full speed ahead, but the *Faiz Rahaman* took the ground at half ebb on the edge of the flat a little above the beacon. The master stated that at the time of anchoring, the pilot ordered the helm to be put hard-a-port, but the barque not answering her helm, she ran aground. The barque remained on shore until the night's flood-tide, when at 10 P. M. she was towed off and placed in safe anchorage for the night. She safely proceeded to sea the next morning. The *Faiz Rahaman* was aground for 8 hours. No damage to the barque or cargo. No loss of life. (The casualty was unavoidable.)

The Port Officer recorded that this accident occurred apparently on the same flat on which the ship *Roman Empire* grounded, and that it had since been marked by a buoy placed by the River Survey Department right abreast the flats.

58. The British four-masted iron barque EARL OF JERSEY [of London, 2,052 tons register, official number 87191], from Rangoon to The Channel, with a cargo of rice. It appeared that the barque proceeded down the Rangoon river on the 28th February at 1 P.M. in charge of a pilot and in tow of two steam tugs (which were placed one before the other in tandem line), the *Ava* being ahead and the *Defiance* in the centre. The pilot stated that as the vessel passed Elephant point in good daylight, he intended going with the barque only as far as the Middle buoy anchorage, and consequently did not think it necessary to ask for a requisition to proceed after dark, more especially as the moon was then at the full. At 8-30 P.M. the *Earl of Jersey* unfortunately grounded abreast the Lower Eastern buoy, in the western channel, entrance to Rangoon river, Gulf of Martaban (Burma coast). It was the last quarter of the ebb-tide, and the least water found was 21′ all round; the bottom being soft mud. The vessel remained quite steady and upright, and the tugs were still kept fast when, as the flood-tide made, she floated off at 10 P.M. without having sustained any damage. She was subsequently anchored in a safe berth on the Outer station. The *Earl of Jersey* was aground for 1½ hours. No damage to the cargo. No loss of life.

[A Special Court of Inquiry was held in the Court of the District Magistrate, Rangoon, by the Deputy Commissioner, on the 16th and 17th March, under the provisions of section 6 of Act XII of 1883 (British Burma Pilots' Act), for the purpose of investigating a charge of breach of the Rangoon Pilot rules under the above Act, and a charge of incompetency or misconduct in the discharge of the duties brought against a licensed pilot of the port of Rangoon who was in charge of the above vessel. On the 16th a copy of the statement of the grounds under section 71 of the Rangoon Pilot rules upon which such charges were framed and of the charge itself, were handed to the accused. The Court charged him as follows:—(1) that you, on the 28th day of February, in contravention of Rule LVI of the Rangoon Pilot rules, whilst in charge of the barque *Earl of Jersey* and proceeding down the Rangoon river, did keep the said vessel underweigh after dark without a written requisition from the master to do so; and (2) that you on the date aforesaid, whilst in charge of the said barque *Earl of Jersey*, and proceeding down the Rangoon river, did commit an act of incompetency or misconduct in that you did attempt to take the said vessel, drawing 23′ across the bar in the western channel, at the mouth of the Rangoon river, within an hour of low-water, when at that stage of the tide only a depth of between 19′ and 20′ of water were obtained. The Court recorded that of the three assessors, one, the master of a sea-going vessel lying in the port, was appointed under section 9 of the above Act by the Vice-Chairman to the Port Trustees, and the other assessors, a merchant and a pilot, by the President. As provided in section 10, sub-section 20 of the Act, the assessors were summoned by the President. The Court then adjourned for the trial of the charges until the following day. The Court re-assembling on the 17th pursuant to citation, the accused, a licensed pilot, was called, and the papers and correspondence relating to the case were produced in Court. The Government Prosecutor stated that he did not propose calling any witnesses, as the barque *Earl of Jersey* had left for Europe, but contented himself in relying on the reports of the pilot, and of the master of the steam-tug *Ava*. The Prosecutor then read out the orders of the Rangoon Port Trustees, wherein they sanctioned the working hours for the harbour masters, *viz.*, 5 A.M. to 7 P. M., from 1st March to 30th September, and 6 A. M. to 6 P. M. from 1st October to 28th February, also an order was issued directing that the overtime fee for vessels, except the mail steamers and those plying within British Burma waters, be paid into the Port Office. On the 6th January the Port Officer applied to the Port Trustees for a similar order to be issued, and that the wishes of the pilots be complied

with and the papers were considered by the Port Trustees at an ordinary meeting, when they approved of the Port Officer's recommendation. The accused was called upon to answer to the charge, to which he pleaded not guilty. The Court thereupon ordered the trial to proceed. The accused asked to be allowed to read a written statement, and on permission being given, he did so. He said that as regards charge (1) he explained to the Court that the term daylight to dark in the Pilot rules meant the hours between 5 A. M. and 7 P. M., from 1st March to 30th September; during the other portion of the year, the hours were from 6 A. M. to 6 P.M. He then stated that to keep a vessel underweigh before or after those hours a pilot must have a written request to do so from the master of the vessel, which request entitled him to claim a night fee of ₹32. As on the evening in question the barque *Earl of Jersey* was at the spit buoy at 6-45 P. M., the sun not having long set, and there being a full moon well above the horizon, he could not conscientiously tell the master that it was dark, and that he deemed a requisition from him unnecessary, especially after having previously informed the master that he intended anchoring the barque in another quarter of an hour or so. In reply to charge (2) he stated that before starting from Rangoon town with the vessel, he gave the master of the steamer *Defiance,* which, with the assistance of the tug *Ava,* was to tow the *Earl of Jersey,* definite instructions in presence of two witnesses as to how far he was to take the barque out in one tide, and those were to the following effect:—"Tow me to the middle buoy anchorage and turn the vessel round, as I will anchor there until next high-water, not thinking it prudent to attempt crossing the outer bar at low-water with a vessel of that draught." The Court observed that the pilot alleged, he gave those instructions, before starting, in case there might be a strong breeze at the mouth of the Rangoon river, when the orders might not be so easily understood. Having passed the Western Lump buoy about 7 P.M., the pilot made every preparation on board the barque for hauling in the hawsers—there being then a strong breeze from right ahead and the smoke from the two steamers, which were towing in tandem line, was so thick and blinding that it was with difficulty he could remain on the vessel's forecastle. The *Earl of Jersey* was getting well down towards the anchorage, and the pilot seeing no movement on the part of the steamers, he repeatedly hailed them, but without effect. The barque having waited too long to cut away and round-to without assistance, the accused thought that his best course would be to proceed and thus run the risk of scraping safely over the bar, in doing which he maintained that he chose the least of two evils—one being that the *Earl of Jersey* might ground broadside on with the tide before she was properly canted round; the other was to stick in the soft mud, end on, with the tide, with the possibility of getting safely over the bar. The accused said that vessels of heavy draught frequently went out in one tide on the day of the moon when there was a fresh southerly wind blowing, which prevented the tide from falling to zero by 3' or 4'. As an instance, he cited in evidence the case of the ship *Falls of Afton,* which vessel the day previous grounded at much the same state of tide; and even in the event of that vessel having been towed through a foot or two of soft mud, which was often done, it had not hitherto been looked upon as of much consequence, in support of which argument the accused quoted the case of the barque *Willy Rickmers,* which grounded for a few minutes on the outer bar under the same circumstances in March 1884, and on which occasion a Court of Inquiry was not considered necessary, it being so trivial that the pilot was admonished to be more careful in future. The accused informed the Court that this was his first accident since he had been a pilot, extending over a period of 4½ years, during which time he had piloted vessels of much heavier draught and tonnage than the barque *Earl of Jersey,* and in consideration of his having already been suspended from duty for a week, which at that season of the year meant considerable pecuniary loss to

a pilot, he begged that the Court might take a lenient view of the case. The master of the tug *Defiance* (a licensed steam-tug pilot) deposed that before leaving the port of Rangoon the pilot of the *Earl of Jersey* told him that he would go as far as the centre buoy. He said that when the steamer passed the spit buoy about 7 P. M.; all the buoys were visible. He positively stated that he did not hear the accused give any orders after passing the spit buoy. The *Defiance* was 60 fathoms distant from the *Earl of Jersey*, and the master had a man heaving the lead and another watching for the orders of the pilot, but there being a great noise on board the two tugs, and the wind being ahead, rendered it difficult to hear anything from the barque. He neither saw the bow nor the forecastle of the *Earl of Jersey*, only her masts from the foretop above the smoke being visible. The pilot of the *Defiance* stated that if the *Earl of Jersey* had put her helm hard-a-starboard and brought the tug alongside, the barque would have smashed the steamer. The same pilot said that the sun was just setting when the vessel was near Elephant point; that it was a bright moonlight night, but notwithstanding, he did not see any buoy when the casualty happened; that 2½ miles seemed rather a far distance to have seen anything at that time; that if a buoy was just in the beams of the moon he would have seen it 2½ miles off; that being in charge of the tug he was still under the orders of the pilot of the *Earl of Jersey*, and consequently would have kept going on till he was told to stop; and that he could not steer the steamer as the *Defiance* was in the middle. The *Earl of Jersey* was dragging for some time before she finally stopped. The master of the *Ava* (a licensed steam-tug pilot) stated that his vessel was ahead whilst towing the barque; that at the time the accident occurred the wind was ahead about a point on one bow or the other; that the tide was nearly dead low-water; that he saw all the buoys distinctly in going down the river; that since the grounding of the *Earl of Jersey* he had made a report about that portion of the channel that a strong southerly wind sometimes kept up the tide from 2' to 3', but at other times it did not; that he thought that the *Earl of Jersey* stood a good chance of getting out, as the tug *Ava* had towed the ship *Falls of Afton* to sea the previous night nearly the same time drawing 22'; that had the barque taken the ground broadside on in a strong tide she would undoubtedly have been in danger of turning over; and that the channel shifted much about that locality, as it was all mud and ooze. The master of the *Ava* swore that he saw the whole of the barque when she struck the ground, but could not sight the men on the forecastle owing to the smoke of the two tugs being in the way. The accused alleged that had he asked for a written requisition to proceed after dark, he would have been entitled to a night fee of R32, but as it was not dark, he declined to claim that amount, and so continued without the written request, as he only intended to have gone for half an hour after 6 o'clock that evening without anchoring at the middle buoy. On arriving at the buoy the pilot positively stated that he went on much against his will, as he failed to make the tug *Defiance* understand that he wanted the *Earl of Jersey* to stop; that after passing the anchorage, the barque got again into shallow water, where she could not anchor, and consequently was obliged to go on. It appeared that the pilot told the master of the *Defiance* before starting from Rangoon that he was going to anchor the vessel at the middle buoy. There was a strong wind ahead which, with the smoke from the two tugs, prevented the master of the tug from hearing the pilot's orders, or seeing the *Earl of Jersey*. The accused further stated that having got so close to shoal water he did not consider it prudent to have let go or cut the hawser after he had passed the anchorage, as the barque might take the ground broadside on, and it would have been impossible to turn her under half a mile. The Court observed that after the witnesses for the defence had been examined, the Government Prosecutor, in answer to a question from the accused, stated that he had

received a report since the accident occurred, to the effect that the channel had silted up about 3 miles from the locality where the barque *Earl of Jersey* grounded. The Court, after a careful consideration of the evidence produced and the extenuating circumstances urged by the accused, were of opinion, *first,* that the pilot acted in contravention of the Pilot rules in having proceeded after dark without a written requisition from the master of the barque; and *secondly,* that the pilot intended to have anchored at the centre buoy, but that owing to the wind and smoke he was unable to get his signals to the tug understood. The Court were also of opinion that when the pilot found the master of the tug *Defiance* was unable either to have heard him or to have seen him, that he should have adopted some other means for communicating with the steamer, or have cut or slipped the *Earl of Jersey's* hawser before it was too late to do so. The Court were of opinion with regard to the first charge, that as the grounding took place on the 28th February, and that on the 1st March, by the rules of the Port Trustees, daylight extended till 7 P.M. instead of to 6 P. M., and as the moon was full at the time, that beyond a technical infringement of the rule the pilot of the *Earl of Jersey* had not been guilty of any serious offence. He had held up to the time of the present casualty a very good character which was verified by the Prosecutor. Under those circumstances the Court recommended that the pilot's license be suspended for one week from the date on which he was taken off duty, and that the Port Officer be directed to reprimand the pilot for his disobedience of orders.]

The Chief Commissioner of British Burma remarked that he accepted the view taken by the Court that the pilot's license should be suspended for one week from the date on which the Port Officer placed him off duty, and also that he should be reprimanded by the Port Officer.

MARCH.

59. The British iron steam launch PADOUK [of Rangoon, 15 tons register, no official number] was employed in towing cargo boats in the Rangoon river. On the 2nd March the *Padouk* was towing a cargo boat from the harbour to the Pazundaung creek, and at 6-10 P. M. was entering the creek after passing the Monkey point jetty. The crew of the *Padouk* stated that after meeting the *Arakan* in the entrance to the Pazundaung creek, Rangoon river (Burma coast), she continued her course, having her green light on the *Padouk's* starboard bow, and then the *Arakan,* suddenly attempted to cross her bows, when the *Padouk* fouled her, the stem striking the latter vessel's starboard quarter. Slight damage to the *Padouk.* No cargo on board. No loss of life.

[A Departmental Committee of Inquiry was held in the office of the Port Officer, Rangoon, on the 16th March, to inquire into the circumstances attending the collision which occurred between the above steam launches. The Committee, after having carefully heard all the witnesses in the matter, recorded that, assuming that the position where the *Arakan* sank was about the place of the collision, it was evident that the *Padouk* must have seen the *Arakan* proceeding down the Pazundaung creek soon after the former vessel had passed the Monkey point jetty, when, according to the evidence, the green light of the *Arakan* would have been visible from the *Padouk* right ahead and the red and green lights of the latter vessel would have been visible from the *Arakan* as the *Padouk* was entering the Pazundaung creek. The crew of the *Padouk* stated that the *Arakan* continued her course, bringing her green light on the former vessel's starboard bow, but afterwards suddenly attempted to cross the bows of the *Padouk* which caused the collision. The crew of the *Arakan,* on the other hand, stated that the *Padouk* was brought ahead after passing the Monkey point jetty but paid

no regard to their whistling, nor did she (the *Padouk)* sound the whistle in reply. The Committee observed that, owing to the conflict of evidence, it was difficult to say which steamer was to blame in the matter, and as the serang of the *Padouk*, who was responsible for the movements of that vessel, was absent, the Committee considered that the evidence was incomplete; that the crew of the *Padouk* acted in a cowardly and cruel manner in having steamed away from the *Arakan* as it was very clear she was sinking, and they deserved to be very severely punished, and the certificates of the serang and seacunnie should be cancelled. The Committee were of opinion, from having seen the *Arakan* since she had been raised, that the *Padouk* was eased when she struck her; had she not been so, the collision would have been much more severe, nor was there any sign on the *Arakan's* hull that the *Padouk* struck her on the starboard quarter, as the upper part of the hull was bent in as if from a blow of a cargo boat with an overhanging stem, whereas the stem of the *Padouk* was straight, and had she struck the *Arakan* a second time, as stated in the evidence given by the *Arakan's* crew, the damage would have been more considerable.]

60. The British iron steam launch ARAKAN [of Rangoon, 14 tons register, no official number] was employed in towing cargo boats in the Rangoon river. On the 2nd March, the *Arakan* was towing a cargo boat from the Pazundaung creek to the harbour; at 6-10 P.M., whilst proceeding out of the creek, she met the *Padouk* in the Monkey point channel, Rangoon river (Burma coast), bound into the creek; the whistle was blown, but the *Padouk* paid no heed to the warning, nor did she sound her whistle in reply, and came into collision with the *Arakan*, striking her on the starboard quarter. The serang of the *Arakan*, when he saw that a collision was imminent, gave the order for the engines to go full speed and the helm to be put to starboard with a view to lessening the shock and saving the *Arakan* from being struck amidships. The launches after the collision drifted down together, and in about ten minutes the *Arakan* sank, all hands being saved by the cargo boat; she was subsequently raised, and on the 15th taken into the Dalla dock for survey and repairs. After completion of repairs the *Arakan* was set afloat again. Value of damage to the *Arakan*, ₹5,600. No cargo on board. No loss of life.

61. The British iron screw steamer NUBIA [of Glasgow, 2,319 tons register, official number 86709], from Bombay to Liverpool *vid* Kurrachee, with a general cargo. The steamer anchored in the harbour of Kurrachee (Sind coast) on the 2nd March, to load a cargo. During the night of the 3rd the vessel parted her moorings in a heavy squall and grounded on a sand bank. She was subsequently floated off without assistance, after having been aground for 5 hours. The divers to the Kurrachee Harbour Works stated that on the 6th March, they carefully examined the vessel's bottom outside for two-and-a-half hours; they found the hull was in good order, no damage of any kind being apparent. The Shipwright Surveyor, assisted by the Engineer Surveyor and a Superintendent of Machinery, examined the steamer. They reported that they first had her bottom thoroughly examined by professional divers, and after carefully surveying the hull found that the *Nubia* had sustained no damage whatever, either by straining or otherwise, and was fit to proceed on her voyage. No damage to the *Nubia*. No loss of cargo. No loss of life. (The reason assigned by the master for the vessel having touched the ground was, that the spindle of the buoy to which the *Nubia* was moored gave way during a sudden and very severe squall.)

62. The British iron screw steamer WOLVISTON [of West Hartlepool, 1,136 tons register, official number 51506], from Singapur to Bassein in water ballast. On the 4th March the steamer, under charge of a pilot, was proceeding safely up the Bassein river (Burma coast); at 2-30 P. M. whilst passing Messrs. Mohr Brothers' rice mills, the tide being half-flood, weather fine, with a light N.E.

breeze, the steamer was going at half speed past the town of Bassein, for the purpose of being moored off Messrs. Strang, Steel & Co.'s rice mills, when the after steering gear fouled the gear attached to the steering apparatus on the bridge. The pilot finding the vessel unmanageable, and her head being pointed towards the ship *East Lothian*, at once reversed the engine's full speed astern and let go the anchor. The order was promptly obeyed, but the steamer canting her head to the westward, the pilot, in order to avoid a collision with the ship *East Lothian*, which vessel was lying moored in the river, moved the engines ahead as soon as the steamer's way was stopped, but on the *Wolviston* canting round with the flood-tide she came into collision with a boat laden with rice, which was lying alongside the *East Lothian* for shipment, the steamer's rudder striking the boat's stern; the port wire steering rope of the steamer was broken. Value of damage to the *Wolviston*, ₹2,564. No cargo on board. No loss of life. The boat was considerably damaged but not lost, and the Agents of the vessel paid ₹2,500 as compensation to the owner.

63. The British Indian dhoney MAHA LUXMEE [of Honávar, 15 tons register, official number 2361], from Kúmta to Honávar, with a cargo of cotton seeds, &c. On the 6th March the dhoney was lying at anchor off Honavar (Bombay coast); at 4 A. M., owing to strong winds, she parted her cables and was driven ashore at Harbag village, but she was subsequently got off. Value of damage to the dhoney, ₹175; cargo, worth ₹200, was lost. No loss of life.

64. The Norwegian wooden barque ALATA [of Stavanger, 805 tons register, official number not reported], from Liverpool to Rangoon, with a cargo of salt. The master stated that at 5 A.M., on the 8th March, he anchored the barque in 6 fathoms of water to the southward of the Eastern sands, entrance to the Rangoon river, Gulf of Martaban (Burma coast), as he could not see the China Ba-keer light. At 7-30 A. M. the Eastern Grove light was sighted, bearing N. by W. and it being high-water, the master hove up the anchor. At that time the wind was from South to S. S. E., blowing light, and the weather calm, but a little foggy; the master made all plain sail and stood close to the wind on the port tack. Half an hour afterwards a dubash boat, towing astern, came up alongside the barque, when the master found that the vessel was on shore. The lead was immediately hove and bottom found at 3 fathoms with soft mud; the tide at this time, it was ascertained, was setting to the S.W.; the crew were then ordered to clew up and furl all the sails. At 9 A. M. that same day the master sent a dubash boat to Elephant point to telegraph to the Agents at Rangoon the position of the vessel and for assistance. In the meantime two boats were lowered to sound round the barque for a distance of 3 cables, and got soundings in 3 fathoms soft mud, the same depth of water the vessel was lying in. The weather was still, a little foggy, the wind was a moderate breeze from South to S.S.E., and the sea was smooth. At 8 o'clock that night, it being high-water, the master let go the anchor and veered to 10 fathoms of cable, the barque swung from S.W. to East, but took the ground again as the tide ebbed. At dawn on the next day, the wind being from the westward, the crew made all plain sail, but without success, and at high-water she was still aground with her head to the eastward. The tide having fallen, the crew clewed up the sails and made them fast. At 9 A. M. that morning the horizon being clear, sights were taken, and the position of the barque was determined to be 16° 22′ N. latitude and 96° 26′ E. longitude. At 9 o'clock A.M. by the master's account the Eastern Grove lighthouse bore N. N. W. and a black buoy W. S. W. At 6 P. M. there being a moderate wind from S. W., the crew commenced making sail in order to be ready to heave her off at high-water; at 8-30 P. M. the barque began to move off and was kept going slowly ahead. At 9-15 P. M. on the 9th the *Alata* was afloat and going ahead fast to the eastward, the master braced up sharp

on the starboard tack, heading S.E. and S.E. by E.; a cast of the lead was taken when they got 6 fathoms. At 11-15 P. M. tacked, and 45 minutes afterwards the master sighted the China Ba-keer light, which bore W. by S. ¼ S.; there was a light breeze with a smooth sea, and clear weather, the barque heading W. N. W. On the following day (the 10th) at 4 A.M., the master sighted the Pilot brig's light, and anchored the vessel in 6 fathoms of water, with the China Ba-keer light bearing W. by S. ¼ S., distant 12 miles. The weather was then calm, with no wind, the vessel lay with 15 fathoms of cable out. At daylight the master hoisted the pilot flag, when the pilot came aboard and sailed the barque up to town (Rangoon). The barque was aground for 38 hours. Value of damage to the *Alata*, R2,611. No damage to the cargo. No loss of life. (No Court of Inquiry was held in this case, but it was reported that the casualty was occasioned through the master misjudging his distance from the China Ba-keer light, it being foggy at the time the *Alata* passed the Pilot brig and she was swept up the entrance to the Rangoon river by the flood-tide, when she grounded on the Eastern sands.)

65. The British iron ship TRAFALGAR [of Glasgow, 1,696 tons register, official number 76811], from Calcutta to Dundee, with a cargo of jute and jute cuttings. On the evening of the 13th March the ship, in charge of an assistant harbour master, was being transported from No. 10 Esplanade moorings to Garden reach, preparatory to proceeding to sea in tow of the steam-tug *Challenge* on the following morning. The assistant harbour master stated that he was dropping the vessel down, and whilst off Fort point he observed the steam-ship *Koh-i-nur* astern, and thought she was steaming up; he consequently continued dropping when suddenly it was perceived that she was moored off Prinsep's ghât moorings, whereupon the assistant harbour master at once let go the vessel's anchor, but not in time to clear her, and the *Trafalgar* in straightening up came into collision with the steamer *Koh-i-nur's* bows, which vessel struck her in the mizen rigging, doing her considerable damage. The *Koh-i-nur* sustained no damage of any consequence. Immediately after the accident the assistant harbour master ran out a line to Prinsep's ghât mooring buoy which helped to swing her round clear. The Surveyor to Lloyds' Agents reported that on the 14th March he proceeded on board the ship *Trafalgar*, lying at anchor in the stream at Garden reach, in order to make a survey on the damage sustained by the collision with the *Koh-i-nur*. He found that between the 3rd and 4th shrouds of the mizen rigging on the starboard side the gunwale moulding and the upper edge of the sheer strake was set inwards to the extent of 2½″, and the upper edge of the sheer strake and the lower edge of the plate above it was cracked; the main rail and the topgallant rail mouldings immediately above were also set in to almost the same extent, and the plates of the side of poop bent and the rivets started; in another place nearly 24′ forward of the front of poop abaft the bulwark port on the starboard side the sheer strake plate and gunwale moulding was bent in board to the extent of about one inch; the rivets of the gunwale moulding started and the cement of the gutterway cracked and broken; the main rail immediately above and the gipsey winch chock started; the gangway accommodation ladder with platform and iron-work completely smashed and carried away, and two boats' davits bent; the cracks in the upper edge of the sheer strake plate and the lower edge of the plate above it had been caulked and puttied to prevent leakage into the cabins; the hold being full of cargo, the Surveyor was unable to examine the plates and rivets inside below the deck. They reported that so far as they could see, the damage did not extend below the upper deck stringer and did not affect the seaworthiness of the vessel, and in his opinion it was not necessary to detain her for repairs at Calcutta, and that she might proceed on her voyage with safety, but the damage must be repaired on arrival in the United

Kingdom. On the morning of the 15th the assistant harbour master safely took the *Trafalgar* to Garden reach, whence she proceeded down the river in tow of the steamer *Challenge* on the following morning. Value of damage to ship *Trafalgar*, ₹2,000. No loss of cargo. No loss of life.

66. The British iron screw steamer KOH-I-NUR [of Liverpool, 1,936 tons register, official number 91171], from Newport (Monmouthshire) to Calcutta, with a cargo of steel rails. On the afternoon of the 13th March the ship *Trafalgar*, whilst dropping down the Hooghly river from No. 10 Esplanade moorings to Garden reach, fouled the steamer which was lying at anchor off Prinsep's ghât moorings, striking the latter vessel athwart hawse. The *Koh-i-nur* sustained no damage of any consequence. The damage to the *Trafalgar* being above deck, it was not considered necessary to detain her for repairs. No loss of cargo. No loss of life.

67 & 74. The British iron ship EAST LOTHIAN [of Glasgow, 1,389 tons register, official number 76723], from Bassein to The Channel, with a cargo of rice. The ship left Bassein at 7 A.M. on the 12th March, and proceeded in tow of steam-tug and in charge of a pilot down the river to Enterprise island, when the steamer was cast off at 1 P.M., and the ship continued her course down under all plain sail. The master stated that he anchored the vessel above Hengie or Negrais island at 7 P.M., but took no cross-bearings; the position, as far as he remembered, was a little above Dalhousie point. On the following day the master weighed at 11 A.M.; the tide was ebbing, and the wind baffled from S.E.; the vessel became unmanageable; the master stated that, notwithstanding she was under the pilot's orders, he let go the starboard anchor in order to prevent the vessel from drifting on to Wolff rock. Unfortunately at 1-45 P.M. the ship *East Lothian* swung stern inshore and grounded off the eastern side of Hengie island, about 300 yards E.S.E. of Wolff rock; entrance to Bassein river, Gulf of Martaban (Burma coast). The depth of water in which the anchor was dropped was not known, but the master on sounding found soft mud all round. At 5 P.M. as the tide rose, the vessel swung round to her anchor after having been aground for $3\frac{1}{4}$ hours. Under the pilot's orders the *East Lothian* weighed anchor and set course S. by W., (S. by W. $\frac{1}{4}$ W., true), allowing for 3° easterly deviation. The master stated that he considered this course to be an inside one at the time, but said nothing to the pilot. The lead was kept constantly going, the wind being moderate from N.W. The vessel was only about 15 minutes underweigh, when the lead jumped from $4\frac{1}{2}$ fathoms to $3\frac{1}{2}$ fathoms, and the *East Lothian* struck heavily in almost the same spot as on the previous accident; the N. E. point of Hengie island bore N. by E. and the S. E. point, S. W. $\frac{1}{2}$ S., true. She immediately heeled over to starboard and then to port, and remained fast. There was uneven rocky ground all round as shewn by the lead; a piece of soft stone and two pieces of coral came up with the lead. The ship lay aground fore and aft with a heavy list to port at dead low-water; the sounding then showed 18′ from the main hatch aft and 16′ from the main hatch forward. The water was smooth where the ship was lying; and she was not thumping. She sued 4′ during dead low-water at night. At 6 o'clock the next morning (the 14th March) at high-water the master got an anchor out astern, hauled all square sails aback, and hove on the anchor with the steam winch, but all to no purpose. The wind was N. W., moderate, all day. Shortly before 9 P. M. the master got an anchor out on the port bow and hove on it right till it came home, but the ship's head, which was S. W. by S., would not move. He then sent a boat forward and passed the anchor astern, ran it out and dropped it; the master hove it home with the steam winch, but failed to get the vessel off. He then ran it out a second time, when the *East Lothian* slid off into deep water at 9 P. M. after having been aground for nearly 29 hours; the canvas was set at the time and the yards all braced aback. The master brought the ship to an anchor in 12 fathoms of water after furling the sails, the bottom

being apparently hard mud. The vessel lay anchored all night, during which time the pumps were frequently sounded, and it was found she was making no water. On the 14th the master tried to telegraph to the Bassein Agents, but the wires were interrupted; on the 15th he despatched a telegram. On the 16th, at about 7 P.M., the master left the vessel in a steam launch and proceeded up to town (Bassein), returning with a working party on the 20th; the pilot remained on board in command of the vessel during that time. At 11-30 o'clock on the night of the 18th March the watchman called the first officer and informed him that the vessel was sheering heavily, when the first officer at once went on deck and woke up the pilot, who was asleep in the vessel's state-room. He told the first officer that he thought everything was right. The vessel at 1-15 A.M. on the following day, the 19th, swung all right to the ebb-tide; but at 5 A.M. the watchman reported to the first officer that the ship had grounded on the Porian shoal, entrance to Bassein river, Gulf of Martaban (Burma coast). Immediately the first officer went and called the pilot, who was still in bed, and was told to wait, as nothing could be done at the time, but no orders were issued, Thereupon the first officer took charge, as he saw the pilot was not going to do anything to relieve the vessel; he ran the bower anchor out on the starboard quarter and hove on the starboard bow chain, but finding the chain coming home, he hauled it in, when it was discovered that the anchor was broken nearly 2′ below the stock. He then set all the after canvas, hauled the yards aback, and hove on the anchor to prevent the vessel swinging round. The ship would not move till 9-30 A.M., when she swung to the flood-tide, being still aground forward; the first officer then hauled the yards aback, when at the end of half an hour she got off, after having been aground for 5 hours. The first officer stated that the watchman was at work sounding every night. At 11-30 P.M. on the 18th, when it was first reported that the vessel was sheering, there were 12 fathoms of water all round; and just as the ship took the ground for the third time, 19′ were obtained forward and 4½ fathoms aft. The master deposed that he considered the first grounding was unavoidable, and that the pilot was not to blame for not dropping the anchor sooner before the accident happened, because the sails being all full he expected her to get clear. When the second casualty occurred, the pilot said to the master that she could not be aground as there were 14 fathoms of water. Thereupon the master told the pilot, who was on the poop, that the vessel was hard and fast. The pilot appeared to be somewhat confused, as he gave orders to trim the yards, which the master declined to carry out, seeing that it would most assuredly result in the vessel going farther aground. On this the master took over charge from the pilot, as he thought the pilot was not in a fit state to manage the ship by reason of his appearing to be the worse for liquor. The master said that the running out the anchors was under his direction. When the master returned to the vessel on the 20th, the first officer informed him that the vessel had grounded again and lost an anchor; the master on going on the poop found the pilot there the worse for liquor. The second officer swore that the pilot came at intervals on deck, but he gave no orders or advice till the ship was off; he appeared to him to be the worse for liquor. The cause of the anchor having broken was probably due by the vessel ranging over a hard uneven bottom. The Surveyor to Lloyds' Agents proceeded from Bassein on the morning of the 20th March for the purpose of examining the *East Lothian*, then lying to the eastward of Hengie island. On arriving on board the same evening at 5 P.M., it was reported that they found the vessel at single anchor in 10 fathoms of water, and after thoroughly inspecting the decks, the cemented waterways, and the hull, between decks on the top of the rice cargo, they could detect no signs of weakness or of straining in any way, and on sounding the pumps, found that the vessel was

making no water. They also carefully sounded over the place the master of the vessel pointed out as when she had been on shore, and discovered that the bottom was hard sand with gradual slope up to the shore. As the master stated that the ship lay perfectly quiet during the time she was aground, and from the Surveyors' personal inspection of the vessel they had no reason to believe that the bottom had been injured beyond, perhaps, some indentations of the bottom plates, they considered that she was safe and in a fit condition to proceed to sea. One bower anchor was broken off about 2′ below the stock through the vessel having been anchored in the eddies on a rocky bottom. Value of damage to the ship, ₹250. No loss of cargo. The broken bower anchor had not been replaced when the vessel left port. No loss of life. This casualty was attributed to the pilot in neglecting to anchor before getting too close to the shore, and afterwards omitting to take other proper precautions.)

[A Court of Inquiry was held in the Court of the District Magistrate, Bassein, by the Deputy Commissioner on the 21st March, under Rule XXVI of the Bassein Pilot rules, to inquire into the conduct of the pilot, who was charged with gross neglect of duty whilst in charge of the ship *East Lothian*, whereby that vessel grounded on three different occasions on crossing the bar at the entrance to the Bassein river. The Court assembled, as there was not sufficient time to permit a reference to the Chief Commissioner, because the vessel was leaving the port at once. The vessel, it appeared, weighed anchor at 11 A.M. on the 13th March from above Hengie island and proceeded down the Bassein river under all plain sail. At 1-45 P.M. the winds baffling from N. W. to S. E., the ship became unmanageable and drifted on to the Wolff rock, her head being off shore; the master dropped the starboard anchor, but too late to keep her from striking—the bottom being soft mud all round the rock. At 5 P.M., on the flood-tide making, the vessel swung round and the master tripped the anchor and kept the ship's head S. by W. by compass under pilot's orders; the wind was moderate from the N. W., the vessel being under topsails, foresail and jib; the lead was kept constantly going. At 5-15 P.M. the same day, the *East Lothian* struck the ground a second time, heeling over to starboard and then to port and remained fast; the master found rocky bottom all round, there being 18′ under the ship at dead low-water from the main hatch aft and 16′ from the main hatch forward. At high-water the master ran out an anchor and tried to heave her off, but was unsuccessful, and the vessel remained fast, having a heavy list to port, and at dead low-water it was observed that the ship was pretty well water-borne all round. At 7 P.M. on the 14th the master had everything in readiness for heaving her off, and set the main and mizentopsails, the topgallantsails and lower foretopsail, and laid all aback, the wind being moderate from N. W. At 9-30 P.M., just on the top of high-water, the master hove on the stern anchor, when the vessel slid off, her head paying off shore. The master immediately filled on the sails and stood out to the S. E. with a flood-tide for above a quarter of an hour, and then dropped anchor in 12 fathoms of water, paying out 30 fathoms of chain; the pumps were sounded frequently and the vessel found to be making no water. At 5 A.M. on the 19th she grounded for the third time, but floated again at 10 A.M. The Court recorded that the pilot, who was in Court during the whole of the inquiry, heard the statements of the witnesses, and had no questions to ask as they were correct throughout. He explained to the Court that, before grounding the first time, he kept the ship on as long as he could without letting go the anchor, because he thought that he had sufficient wind to get her clear, and the windlass being heavy to work, he wanted to save the labour. He considered the course he took, when the vessel got off the first time, to be correct. He admitted that after the second accident he had taken liquor, and was not in a fit state to manage the ship, when the master took over charge of the vessel before getting her off.

He said that on the night of the 18th, when the first officer inquired of him at 11 o'clock, he went on deck, and seeing nothing unusual he told the first officer that there was no cause for alarm; he heard nothing more till 5 A.M. the next morning, when the first officer informed him that the ship was aground. There was then no use in doing anything till about half-tide, the water beginning to rise at 4 or 5 A.M. He gave the first officer no orders or advice. The master's statement, that the pilot had been freely taking liquor when he came on board the vessel after his return from Bassein was true. The pilot had the liquor on board in his own box. He received a letter from the Government Prosecutor on the 16th March, calling upon him for a full report, but being too much bothered at the time, he did not reply to it, but meant no disrespect to that officer. He considered the anchorage he had after the ship got off the second time to be perfectly safe; there were 12 fathoms of water, and she had out 30 fathoms of chain. The Court observed that this concluded the evidence adduced. The Government Prosecutor charged the accused, a full-draught licensed pilot of the port of Bassein, with gross neglect of duty and with grounding the ship *East Lothian*, on which vessel he was in charge on three different occasions. The Prosecutor stated that the accused in 1881 was suspended for one year for stranding the barque *Star of the East* on the Porian shoal, and made a recommendation that the pilot be deprived of his license, as he (the Prosecutor) had no confidence in him as a Bassein pilot. The Court, after having carefully considered all the evidence produced in the case, decided that the grounding of the ship *East Lothian* on three different occasions in the Bassein river was caused by culpable negligence of the following points: (1) that the accused, a licensed pilot for the port of Bassein, was guilty of gross neglect, when the ship, of which he was in charge, was allowed to go ashore the second time; (2) that he was guilty of gross neglect of duty in being incapable and under the influence of liquor at the time his services were required by the master to help to get the vessel off the reefs when it grounded the second time; (3) that he was careless in allowing the ship to anchor subsequently on a rocky bottom so near the reefs; (4) that he was guilty of gross neglect of duty in taking no action when the vessel went a aground the third time, and necessitating the first officer to manœuvre the ship of which he (the accused) was still in charge; and (5) that he was guilty of neglect of duty in being more or less intoxicated on the afternoon of the 21st March, whilst still in nominal charge of the ship. The Court were of opinion accordingly that the pilot was not fit to be trusted with life and valuable property, and recommended that he be deprived of his license. The Court considered that this would be a sufficient penalty.]

The Chief Commissioner of British Burma accepted the finding of the Court, and directed that the pilot be deprived of his license. With reference to Rule XXIII of the Pilot rules for the port of Bassein, the Chief Commissioner directed that the *ex* pilot should have no claim for pilotage fees on account of the voyage of the ship *East Lothian,* and that the fees, if still in deposit at the Port Office, should be returned.

68. The British iron screw steamer ABANA [of Liverpool, 2,060 tons register, official number 87917], from Liverpool to Bombay, with a general cargo. On the 15th March the steamer was proceeding up the harbour of Bombay in charge of a pilot, when, through an error of judgment on the part of the pilot, whilst entering the Prince's dock channel, preparatory to proceeding into dock to be berthed, the *Abana* was allowed to drift to leeward, where she fouled the Port Trust dredger's chain with the fluke of her anchor, and by the time that was cleared the ebb-tide had made down, and she was unable to get into the dock at high-water. No damage to the *Abana*. No loss of cargo. No damage to the dredger. No loss of life. (The Marine authorities at Bombay were asked to fill up a form, with full particulars, relating to the casualty; they, how-

ever, submitted no form, and merely stated that no such accident as that referred to had occurred, but the *Abana* simply fouled the dredger's chain cable, without any damage resulting either to the vessel or to the dredger. No further information could be obtained from the Marine authorities at Bombay. The above details were compiled principally from private sources.)

69. The British Indian suvala AMBRAVATI [of Jaytapur, 28 tons register, official number 5612], from Bombay to Bánkot, in ballast. On the 16th March, whilst entering the Bánkot river (Bombay coast), the suvala met with a strong gale at 1 A.M., and when on the bar suddenly capsized off the village of Hareshvar, but was shortly afterwards recovered. Value of damage to the suvala, R125. No cargo on board. No loss of life.

70. The British iron ship OIMARA [of Glasgow, 1,354 tons register, official number 71739], from Chittagong to the Mauritius, with a cargo of rice. On the 17th March the ship in charge of a pilot, and without steam, was proceeding down the Kornafuli river (Chittagong coast), and the pilot anchored her for the night at Gupta kháli. On the 18th at noon the ship got over the Gupta kháli crossing with a fair breeze, and as the pilot found the wind inclined to freshen, he attempted to sail out, as no tug was then available, and stood on for the bar with all sails set. As the vessel got to the Middle bar buoy, it being high-water, the wind failed and drew ahead, when the pilot braced the ship sharp up on the starboard tack, and soon afterwards it fell a calm. In the meantime, the ebb-tide made, when the pilot, observing that the vessel was in small water, considered it unwise to drop the anchor for fear of the ship grounding on it, and as she could neither drop out nor sail back to a safe anchorage, and the tide having fallen fast, the *Oimara* took the ground on the Eastern flats midway between the Middle and the Outer bar buoys, entrance to the river. She remained very quiet and upright all the time. At midnight, as the flood-tide made, she floated off, but it being a calm, nothing could be done, as the kedge, which was laid out, came home. She was aground for 9 hours. The *Oimara* on her arrival at the Mauritius was inspected by Surveyors, who found that she was making no water. A diver was, however, sent down, in accordance with the Surveyors' recommendation, to examine the vessel's bottom; he reported that she was uninjured. No damage to the ship or cargo. No loss of life. (The casualty was unavoidable.)

71. The British iron ship SIR HENRY LAWRENCE [of Liverpool, 1,221 tons register, official number 51496], from Chittagong to the Mauritius, with a cargo of rice. On the 13th March, the ship, in charge of a pilot, and without steam, was proceeding down the Kornafuli river (Chittagong coast), and when at Gupta kháli the pilot anchored her for the night. On the 14th, the steamers *Chaffinch* and *Active* came and made fast to the *Sir John Lawrence*, and, with the aid of sails, attempted to tow the latter vessel to sea, but without success. The ship stood across to Juldia, but as soon as she got head to wind, the little steamers could not hold the vessel against the strong breeze nor get her to a safe anchorage, so the pilot returned with the ship to Gupta kháli, and anchored for the night. There the vessel remained anchored until the 17th, when at noon she sailed over to Juldia and dropped down to an anchorage for the night. On the following day (the 18th) a fair breeze sprung up, and it being half flood, the pilot seeing that the wind was steady, hove up and made sail; but when the vessel got to the Middle bar buoy, it was found that the ebb had made, and, fearing that the ship would strike the ground if he attempted to go on, he turned the vessel by dropping an anchor under foot and returned to the only safe place on the bar where it was known that the ship would ground, but only at low-water. The *Sir John Lawrence*, as expected, whilst swinging to the flood-tide, touched the ground, but swung fair at 8-30 P.M. At high-water that night the pilot had sails set and tripped the anchor three times, but with no effect, as the breeze died

away, and the vessel had to return to her anchorage again. The ship was aground for 20 minutes. No damage to the *Sir John Lawrence*. No loss of cargo. No loss of life. (The casualty was unavoidable.)

72. The British iron screw steamer ASIA [of Glasgow, 1,139 tons register, official number 52586], from Calcutta to Colombo, with a cargo of rice. On the 18th March the steamer, in charge of a pilot, was proceeding down the Hooghly river; at 9-20 A.M., whilst turning during the last quarter of the ebb-tide from the Garden house steps at Garden reach, the vessel's rudder took the bank, but in consequence of her not having gathered sufficient headway, although the engines were going full speed ahead, she having at first had too much sternway, the vessel came off immediately. The steamer subsequently got round and went towards Melancholy point, where it was discovered that the rudder was damaged and the helm could not be put to port more than a 16th part, so the pilot had to bring the *Asia* to an anchor and send for assistance. At 4 P.M. the Marine Superintendent of the British India Steam Navigation Company arrived with the steamer *Resolute,* and with her aid the *Asia* was towed back to Garden reach. The Surveyor to Lloyds' Agents reported that on the morning of the 11th April he attended on board the steam-ship *Asia*, lying in the Upper Howrah dry dock, where she was placed, on his recommendation, for the examination of the vessel's bottom and rudder in consequence of her having taken the ground at Garden reach, whereby she sustained serious damage to her rudder. After a careful examination of the repairs, it was found that the back frame of the rudder was bent to starboard between the two lower braces and the rudder stock slightly bent to port; the head twisted at the lower packing gland, the gland broken, and the stop cleats started and broken. The steering gear and tiller were removed from the rudder head, the blade-plating cut off, and the frame taken to the British India Steam Navigation Company's workshop, where it was straightened and repaired, the blade-plating riveted and again shipped into its place, and new stop-cleats fitted; the gudgeons on the stern post were also unriveted and taken to the workshop, straightened, re-bushed, and rivetted in their places, and a new packing gland fitted; the sparring battens in the after hold were removed, the plates and rivets inside examined, and the bottom outside examined throughout, resulting in no damage being found; the storm valves of water-closet and bath-room pipes examined and found in good condition and perfectly water-tight; new chain was fitted on each side attached to the tiller for bridge steering gear, and the after steering gear overhauled and put in working order, and new preventer chains fitted on the after part of the rudder. The *Asia* after having been repaired was, in the opinion of the Surveyor, strong, staunch and seaworthy, and fit to carry a dry and perishable cargo to any part of the globe. Value of damage to the steamer, ₹7,388; cargo, ₹5,000. No loss of life. (The cause of the grounding was an error of judgment on the part of the pilot in not having gone ahead in time to counteract the sternway.)

The Port Officer recorded that it appeared from the pilot of the *Asia's* account, which was quite straightforward, that he admitted an error of judgment in backing the engines a little too long, so that, although the engines had been moving ahead full speed, she touched the bank with her rudder, and it seemed that the rudder head had been twisted. As it continued to move freely, it was at first thought no damage had been done, but it was soon found that the helm was only effective to turn the ship one way, and the vessel was assisted on her way back to town by the Port Commissioners' steamer *Resolute*. The facts were quite simple, and there was nothing to be elicited by a Departmental Committee of Inquiry; the Agents did not complain of the pilot, and the Port Officer considered it no case for trial. In considering the recommendation to be made to Government the Port Officer noted that two years ago the pilot of the *Asia* was found in fault on a trial regarding the collision between the steamers *Cochin*

and *Clan Drummond*, and since that time he had had two petty cases of no importance. He seemed to have been giving his best attention to his duties, but the river was very narrow at that locality—only 4 ships' lengths—and it was to be expected that accidents would occasionally happen, and the pilot should be cautioned only.

The Lieutenant-Governor of Bengal observed that this was the third case within a very few months in which vessels had met with accidents owing to unskilfulness in turning in the river. His Honor considered that such frequency in the occurrence of accidents betokens some carelessness, and did not concur in the Port Officer's view that the pilot was to be wholly exonerated from all blame.

73. The British iron screw steamer MEDINA [of Glasgow, 523 tons register, official number 30634], from Calcutta to Chandbáli, with 196 passengers and a general cargo. It appeared that at 9 P.M. on the 19th March the steamer left Dhámrá, and whilst crossing the *Celerity* bar buoy the master did not see the buoy until it was alongside; there was a strong flood-tide running, and as the vessel was rather late in coming up, the master was anxious to get to Chandbáli during the night, when, owing to a wrong order having been passed, the telegraph having broken down, the *Medina* unfortunately struck the *Celerity* buoy and broke it away. The steamer, after proceeding for a short time, grounded on the Sickle sands in the Baitarni river (Orissa coast). The vessel having been lightened was hove off on the 22nd and proceeded to Chandbáli, where she took in cargo and left on her return voyage to Calcutta. She was aground for 3 days. The *Celerity* buoy was an old Nun buoy, and, on an examination of it during the N. E. monsoon, it was found that the keel was worn out; the shackle was entirely rusted away, and would have parted sooner or later. Value of damage to the steamer and cargo, ₹70. Value of damage to the buoy, ₹100. No loss of life. (The accident was caused by the master attempting to proceed up to Chandbáli in the dark.)

74. *See East Lothian*, No. 67.

75. The British iron ship SIR HENRY LAWRENCE [of Liverpool, 1,221 tons register, official number 51496], from Chittagong to the Mauritius, with a cargo of rice. On the 18th March the ship, in charge of a pilot and without steam, was proceeding down the Kornafuli river (Chittagong coast). The pilot attempted to sail out, but the wind having failed he could not regain a safe anchorage, and therefore anchored her in the gut off the Middle bar buoy. At 8 P.M., it being dead low-water, she grounded gently, but came off after 20 minutes. At 6 A.M. on the 19th the ship again struck the ground, as the pilot could not get back to her old position. At 9-30 A.M. as the flood-tide made she swung fair and floated off. There was then a moderate breeze, and as soon as the pilot found that there was sufficient water he made sail and proceeded; an hour afterwards the wind went ahead and the vessel began dropping up with the flood, when at that moment the steam launch *Active* came alongside and took the ship in tow, and at 3-35 P.M. the *Sir Henry Lawrence* safely got over the Outer bar. The pilot stated that had the *Active* not rendered assistance at that critical moment, he had determined to sail back to Juldia, and taken up a safe berth. The *Sir Henry Lawrence* was aground for 3½ hours. Slight damage to the ship. No loss of cargo. No loss of life. (The Port Officer, Chittagong, recorded that, in his opinion, the pilot was free from blame, and that both the accidents, which were of a trifling nature, were due to the wind falling light; the pilot did his best and attempted to take the *Sir Henry Lawrence* to sea, drawing 21′ 6″ of water, under sail, as no tug was available. The steamers *Chaffinch* and *Active* combined had on the 14th endeavoured to tow her out, but without success owing to the strong wind. The casualties in his opinion were unavoidable, and such were likely to recur so long as the port was left without an efficient tug.)

76. The British iron ship OIMARA [of Glasgow, 1,354 tons register, official number 71739], from Chittagong to the Mauritius, with a cargo of rice. The ship on the 18th March was proceeding down the Kornafuli river (Chittagong coast) under charge of a pilot and without steam. At noon the pilot attempted to sail the vessel out, no tug being available, when the wind failed just as she was within three ships' lengths from the Outer bar, and the water having fallen, the *Oimara* grounded but came off again. At 4 A.M. on the 19th the ship grounded again on the Eastern flats nearly in the same spot. The pilot ran out a kedge anchor broad on her starboard bow with a full coil of a 6″ Manilla hawser, and the wind being from N. W. sail was made, but all attempts proved futile. At about noon the steam launch *Active,* in charge of the senior pilot, came and lashed alongside on the *Oimara's* port quarter; at 2 P.M. endeavours were made, when she floated off, and the pilot having made sail, the ship, with the aid of the steamer *Active* (which little boat did great service), got outside the river and was safely anchored in 7 fathoms of water for the night. The vessel was aground for 10 hours. Value of damage to the *Oimara*, ₹100. No cargo lost. No loss of life. (The Port Officer, Chittagong, observed that in his opinion the pilot was free from blame, and that both the accidents, which were of a trifling nature, were due to the wind falling light; the pilot did his best and attempted to take the *Oimara* to sea under sail, drawing 20′ 6″ of water, as no tug was available. The casaulties in his opinion were unavoidable, and such were likely to recur so long as the port was left without an efficient tug.)

77. The British iron screw steamer COCONADA [of Glasgow, 547 tons register, official number 67995], from Calcutta to Chittagong, with a general cargo. On the 21st March the steamer in charge of the master (a licensed pilot of the port) was proceeding up the Kornafuli river (Chittagong coast), when, at 8 A.M., owing to the master not having sufficiently cleared the lump, she grounded near the Ring buoy shoal. The steamer remained aground for ten minutes, and then floated off and anchored safely in the channel. No damage to the steamer or cargo. No loss of life. (It was reported that the master was furnished with a Board of Trade form and was requested to fill it up with full information of the casualty; but he returned the form with a very meagre report six months afterwards, although the vessel had called regularly at that port. No Court of Inquiry was held concerning this accident; it was stated that the lump in question was well known to the pilots and to the master of the steamer *Coconada,* and that it had existed for years.)

78. The British iron screw steamer MECCA [of Glasgow, 937 tons register, official number 68059], from Calcutta to Bombay, *viâ* Indian coast ports, with a general cargo. On the 22nd March the steamer in charge of a pilot was proceeding down the Hooghly river; at 3-35 P.M., whilst going through the new track at Moyapur, with 12′ up at the tidal semaphore, an eddy-tide caught her on the port bow, and although the helm was previously put hard-a-starboard, she would not answer to it, but grounded gently alongside the southern bank. The *Mecca* backed off after having been aground for quarter of an hour, when she proceeded on her voyage. No damage to the steamer or cargo. No loss of life. (The casualty was accidental.)

79. The British iron screw steamer KAISAR-I-HIND [of Greenock, 2,401 tons register, official number 76182], from Calcutta to London, *viâ* Marseilles, with a general cargo. On the 22nd March the steamer in charge of a pilot was proceeding down the Hooghly river; at 3 P.M., whilst the vessel was rounding Fulta point with the helm hard to starboard, the port bridge wheel chain carried away, and before she could be stopped, the *Kaisar-i-Hind* was head down the river, and took the ground on the Nynan flats on the western shore below Damuda point. An hour afterwards the steamer floated, when she proceeded and anchored at

Diamond harbour for the night. No damage to the steamer or cargo. No loss of life. (The casualty was accidental.)

80. The British wooden barque WILLIAM PATERSON [of Liverpool, 619 tons register, official number 61362], from Rangoon to Cochin, with a full cargo of rice and paddy. On the 23rd March the barque was proceeding down the Gulf of Martaban under sail, having left the port of Rangoon on the previous day. At 9 o'clock that morning the *William Paterson* passed the Pilot brig bearing West, distant one mile. An hour afterwards the wind died away suddenly and the ebb-tide which was very strong drifted the vessel close to the Norwegian ship *Favorit*, then lying at anchor off the China Ba-keer light, the light-house bearing N. W. by W. ½ W., distant 6 miles (Burma coast), whereupon the master anchored the *William Paterson* nearly two cables' lengths from the *Favorit*, and when 10 fathoms of chain was paid out, the cable fouled under the windlass, causing the anchor to drag, thereby drifting close to the ship, and the latter vessel was hailed to veer out cable which was only done to the length of 8 or 10 fathoms. Immediately afterwards, on the barque's chain being cleared and veered to 20 fathoms, she swung to her anchor, and came into collision with the ship *Favorit's* jibboom. The master of the barque stated that had the *Favorit* had more chain on deck, by veering the collision would have been avoided. The *William Paterson* had her maintopgallant rail started; five butts started in the main deck and some seams; the *Favorit's* jibboom, which was carried away, took the barque's mizen and middle stay and staysail, and carried away the main upper and lower topsail braces. The crew of the barque had to cut away some of the lanyards of the main and mizen rigging in order to get clear of the ship. After the accident, the master of the barque ascertained from the first officer of the *Favorit* why he did not veer away more chain, and thereupon he was informed that that vessel had no more chain on deck, rendering it impossible for the *William Paterson* to clear her. The *Favor it,* it was stated, slipped her cable, but would have saved the anchor and chain had a proper buoy rope been bent. After having got the barque clear, the crew clewed up all sails, and the pumps being sounded, and finding that she was not making any more water than usual, she proceeded on her voyage at 8 P.M. the same night and arrived in Cochin harbour on the 21st April. No survey was held on the *William Paterson* at Cochin, but the master stated that the repairs needed by the vessel were effected on board on the voyage, and that she had incurred no expense whilst at that port. No damage to the cargo. No loss of life. (No Court of Inquiry was held concerning this collision, and it was reported that the cause of the accident was owing to the barque's chain having been jammed under the windlass and to the *Favorit* not veering chain.)

81. The Norwegian wooden ship FAVORIT [of Norway, 934 tons register, official number not reported], from Colombo to Rangoon in ballast. On the 23rd March the ship was lying anchored off the China Ba-keer light-house, which was bearing N. W. by W. ½ W., distant 6 miles, Gulf of Martaban (Burma coast). At about 10 A. M. the barque *William Paterson,* with a light southerly wind and a strong ebb-tide, was proceeding down the Gulf of Martaban with all sails set; at that time the weather was fine and clear and the sea smooth. Just then the wind suddenly died away and she was driving close to the *Favorit,* when the barque anchored, and after paying out 10 fathoms of cable, the chain got jammed under the windlass, causing the *William Paterson's* anchor to drag, and whilst drifting came into contact with the ship *Favorit* and carried away the latter vessel's jibboom, with all the gear attached to it, and damaged the cut-water. The master of the *Favorit*, in order to avoid further damage being done, immediately slipped his anchor with 60 fathoms of chain: the *William Paterson* let go her anchor a few fathoms off, but not in time to prevent the collision. The anchor and chain having been buoyed with a

rope leading and bent on inside the hawsepipe, naturally was cut on the cable running out, and thus precluded the possibility of weighing it again at any future period. The *Favorit* afterwards proceeded up the Rangoon river. On the morning of the 27th March the Surveyor to Lloyds' Agents, together with a Marine Surveyor, proceeded on board the ship *Favorit,* lying afloat in the Rangoon river, in order to make an examination on that vessel to ascertain what damage she had received by her collision with the barque *William Paterson.* After a careful survey of the ship above water, they reported that the *Favorit* was on a passage from Colombo to Rangoon, and on the 22nd March she came to an anchor, with the China Ba-keer light bearing N. W. by W. ½ W., about 6 miles distant; and on the following day, at half past 9 o'clock that morning, the barque *William Paterson* under sail, in trying to cross the bow of the *Favorit,* came down upon her; to lessen the effect of the collision the *Favorit* slipped the port anchor with 60 fathoms of chain. The *William Paterson* also caused the following damage to the *Favorit:* The jibboom carried away with all the gear attached to it; the cutwater smashed; and the stem plate and some of the copper torn off. The Surveyors recommended that all the necessary repairs be done about the bow of the vessel, a new jibboom with all the necessary fittings to be obtained, and that as a suitable anchor and chain could not be procured at Rangoon, and the *Favorit* having a spare anchor and chain on board, they were of opinion that she should proceed without them until she reached her port of destination. On the 31st March the Surveyors again visited the vessel for the purpose of finally surveying her. They found that all the repairs which had been advised were completed. They further certified that the *Favorit* was in a thoroughly seaworthy condition and fit to carry a dry and perishable cargo to Europe. Value of damage to the ship, ₹5,300. No cargo on board. Value of the anchor and chain lost by the *Favorit,* about ₹1,898; it was reported that they were not replaced at Rangoon, neither had they been recovered. No loss of life. (The cause of the collision was owing to the barque's chain having been jammed under the windlass and to the *Favorit* not veering chain.)

82. The British Indian padow POORUNPRASAD [of Bulsár, 15 tons register, official number 1896], from Bombay to Dholera, with a cargo of molasses. On the 23rd March the padow was at anchor off Vadnagar in the Gulf of Cambay, and at 11 P.M. she grounded as usual on the recession of the tide, but as the surface bottom was composed of sand instead of mud, as was usually chosen, if circumstances permitted, the ebb-tide washed away the sand from under her, and the padow sank by the stern; in order to prevent her capsizing when the flood-tide made, jettisoned the major portion of the cargo. She was subsequently recovered with little or no damage. Cargo worth ₹1,736 was lost. No loss of life. (The casualty was owing to the tindal having anchored the padow on sandy bottom.)

83. The British iron barque GLANDINORWIG [of Carnarvon, 1,080 tons register, official number 74870], from Rangoon to the Channel, with a cargo of rice. The barque left her moorings in the harbour of Rangoon at 9 A.M. on the 25th March, and safely proceeded down the river in charge of a pilot and in tow of the steam-tug *Salween;* and at about 8 o'clock that same evening she anchored close to the Pilot brig, entrance to the Rangoon river, Gulf of Martaban (Burma coast), when the pilot left her. An hour and a half afterwards, the weather being fine and clear, with a light breeze from the westward, and the tide half ebb, the master tripped the anchor and stood S. S. W. on the starboard tack under topsails and courses. At 11-15 P.M., the look-out man reported to the master that he saw a bright light right ahead. The master, who was then on watch, after having sighted it, ordered the man at the wheel to put the helm hard over to starboard, and he even helped him

to put the helm hard-a-starboard; at the same time the crew brailed the spanker in. The Italian ship *Nicolo Accame* was lying at anchor off the Pilots' station with her head N. N. E. The *Glandinorwig* refused to answer her helm, and she was too close to let go the anchor as it would have brought her across the *Nicolo Accame's* bow: the latter vessel's anchor light being visible all the time. The master of the Italian ship states that the *Glandinorwig*, whilst attempting to cross the bow of the *Nicolo Accame* with a light breeze and a strong current, the *Glandinorwig's* starboard side came into collision with the *Nicolo Accame's* starboard side, thereby carrying away her two topsail yards, the flying jibboom, &c. The *Glandinorwig* lost her three topgallantmasts, the foretopmast backstay and the maintopmast backstay, split three topsails, &c., estimated value about £40. She did not put back to Rangoon, but the damage sustained chiefly consisted of spars, &c., which were replaced by new ones on board. The two vessels remained locked together until slack water, when they were driven apart by the force of the tide. The master then endeavoured to proceed to sea, whereupon the crew objected and refused work, and seeing their mutinous conduct he had to bring the vessel to an anchor. On the 28th March a survey was held on the *Glandinorwig*, lying afloat at the Rangoon Pilots' station, by two experienced pilots of the Rangoon river, who held certificates of competency as masters. They reported that they proceeded on board the barque in order to make an examination on that vessel to ascertain what injury she had received by her collision on the Pilots' station, on the night of the 25th when outward bound, with the Italian ship *Nicolo Accame*, which latter vessel was lying at anchor awaiting orders from her owners. After a careful examination they found the hull of the *Glandinorwig* intact and in the same good condition as when she left Rangoon; the lower masts, the topmasts, the lower and topsail yards, the topgallant yards, the royal yards and skysail in like good condition; the bowsprit and jibboom and all the headstays also in good condition, with the mizenmast and all its equipment. The loss which the barque sustained was the fore, the main, and the mizen topgallantmasts; two topmast backstays carried away near the dead eye, which had been made equally good by the addition of a chain; the whisker on the starboard side slightly damaged and removed from its place. There was a sufficient number of good spars on board, as well as rigging, to replace all the damage caused by the collision; the Surveyors were therefore of opinion that there was nothing whatever to prevent the *Glandinorwig* from proceeding on her voyage without any delay. The pumps having been sounded, it was found that she was making no water, notwithstanding that she had not been pumped out for the space of 14 days, when washing out the ship's hold. The draught of water forward was 19′ 7″ and aft 19′ 9″, and the load line clear of the water. They stated that in consequence of the crew having refused to proceed on the voyage, saying that the barque was not seaworthy, the master considered it necessary to call for a survey. The Surveyors called the crew aft and wished to know the reason for objecting to go to sea with the vessel, whereupon they replied that she had no topgallantmasts, and that two topmast backstays were carried away—one on the fore and another on the main,—and still refused to proceed on the voyage, when one man (H. N. Dunstan), who appeared to be the spokesman, exclaimed that he was bound to go back to Rangoon. The master stated that the Surveyors reported the *Glandinorwig* to be perfectly seaworthy in every respect; the crew had secured the backstays, and there were plenty of spare spars to replace the ones carried away, but a portion of the men still refused to turn out to work. A few days later on, Her Majesty's ship *Dragon* proceeded down the Rangoon river, and on signals being observed by the crew of the gunboat, shown from the barque, she quickly ranged up alongside the *Glandinorwig*

Subsequently the mutineers were tried by a Naval Court held on board H. M. S. *Dragon*, and as they were unable to give sufficient reason for their refusal, the Court at once passed sentence; their accomplices, with the *leader*, who still determined to do no more work on board the vessel, having been found guilty, were awarded various terms of imprisonment, and were sent to Rangoon to undergo their sentences, and five others shipped in their stead. The result of the bad behaviour of the crew was that the vessel was detained at anchor on a dangerous coast for almost a week, and but for the timely interference of the gun-boat *Dragon* she might have been detained there indefinitely. No damage to the cargo. No loss of life. (No Court of Inquiry was held to investigate the cause of this collision, but it was reported that the casualty could have been avoided had the master of the barque *Glandinorwig* exercised proper care in the handling of his vessel.)

84. The Italian wooden ship NICOLO ACCAME [of Savana, 1,371 tons register, officialn umber not reported], from Singapore to Rangoon in ballast. The ship sailed from Singapore on the 10th March, and all went well with the vessel up to the 25th of the same month, when at about midnight of that day the *Nicolo Accame* was lying at anchor off the Pilots' station, entrance to Rangoon river, Gulf of Martaban (Burma coast), with all her lights burning brightly. The direction of her head at the time of the casualty was N. E. by E., and the *Glandinorwig* was proceeding down due South with topsails, jib and spanker set. The weather was fine and clear, the tide, which was then ebbing, was running strong, and the wind a light breeze from the westward. The master of the *Glandinorwig* in attempting to cross the bows of the *Nicolo Accame* unskilfully handled her, with the result that the *Glandinorwig's* topsail yards came into collision with the *Nicolo Accame's* jibboom, thus breaking the jibboom and carrying away two topsail yards, &c., estimated value ₹2,000. No loss of life. (The collision was due to the improper handling of the barque *Glandinorwig.)*

85. The British Indian pattimar KARAMATI [of Bánkot, 14 tons register, official number 4583], from Bánkot to Calicut, with a cargo of paddy. On the 26th March, at 3 A.M., the pattimar, whilst entering the Achra creek (Bombay coast) at low-water, grounded on the bar, owing to the tindal not having kept her in the channel. She was afterwards got off. Value of damage to the pattimar, ₹150. Cargo nearly all lost. No loss of life.

86. The British iron screw steamer BUSHEER [of Glasgow, 539 tons register, official number 48901], from Calcutta to Chittagong, with a general cargo. On the 27th March the steamer in charge of a pilot was proceeding down the Hooghly river; at 11-10 A.M., whilst the vessel was crossing in No. 3 track, Moyapur, the pilot sighted two cargo boats, laden with rice and paddy, close to on the starboard bow, and he starboarded the helm, but the boats still tried to cross the *Busheer's* bow, whereupon the pilot then eased the helm in order to allow the first boat to cross, and waiving to the second one to keep back, at the same time starboarding the steamer's helm again. Notwithstanding the efforts made to avoid a collision, the boat came on and struck the bluff of the *Busheer's* bow. The bow of the cargo boat was so seriously damaged that she sank within 8 minutes. The engines were immediately stopped, and the pilot at once lowered the steamer's jolly boat and picked up the four men, and after placing them on board another boat, the steamer proceeded on her voyage. No damage to the steamer or cargo. No loss of life. (The collision was caused by the crew of the boat persisting in crossing the *Busheer's* bow.)

87. The British iron screw steamer KARAMANIA [of Barrow, 2,045 tons register, official number 83989], from Liverpool to Calcutta, with a general cargo. On the 29th March the steamer in charge of a pilot was proceeding up the Hooghly river; at 6-35 P.M., it being half flood, the vessel was passing close to the Long Sand light-ship, steering N. by W. (compass error 2° easterly), the

leadsman giving 6 fathoms of water; in a few minutes she shoaled into half five fathoms, steered N. by W. and deepened into 6 fathoms again; the pilot then eased down before turning to anchor and steered North, when the look-out forward cried out that there was a buoy close ahead; the helm was immediately put hard-a-port and the engines stopped, but, notwithstanding, the *Karamania* came into contact with the Upper Middleton buoy in Saugor roads at the entrance to the Hooghly river, the moorings of which fouled the steamer's screw. At 7-30 P.M., when the pilot anchored off Saugor in 7 fathoms of water, the buoy was still foul of the propeller, but within a quarter of an hour it disappeared. At 10 o'clock that same night, on turning the propeller round by hand, a rumbling noise like a chain slipping was heard, when it was reported that all was clear of the screw. The master of the steamer stated that he was on the lower bridge when the Long Sand light-ship was abeam and steered N. by W. immediately after passing the light-ship, but the course he said might have been altered half a point either way without his knowledge. At that time the vessel was about half way between the buoy and the light-ship, and as it was getting dusk, and being a quarter of a mile distant from the light-ship, he could not say what the colour of the buoy was. The pilot seemed a little surprised when the buoy was reported ahead. The master said that the first time the man sung out he did not distinctly hear what was said, but he afterwards heard him say it was right ahead; the helm was instantly put hard-a-port, and he was of opinon that by starboarding the helm after the buoy was abeam it would not have cleared the steamer's propeller. It was a clear moonlight night, and when the buoy was sighted the vessel was going nearly 4 knots an hour; the telegraph was at "slow," and the first officer and one of the crew were on the look-out forward. The first officer said that he was on the forecastle head when passing the Long Sand light-ship; she passed to the eastward of the light-ship about 2 ships' lengths off, or a little over 200 yards. He reported a buoy straight ahead, when it was some 300 yards distant; the direction of Saugor light-house was more abeam than on the bow, and the steamer seemed to approach it straight end on; two minutes afterwards she struck the buoy with the port bow. Nearly 15 minutes after the accident the first officer let go the starboard anchor under foot; he scarcely gave her 10 fathoms of cable at first, as she hung across the tide; she then gradually swung round to the tide, when a little more chain was given, and the vessel apparently brought the buoy and moorings with her. The third officer, who was on the upper bridge attending to the telegraph the whole time, immediately after passing the light-ship, stated that the vessel was steering N. by W. by compass; the course was not shifted to his knowledge. A pilot, who was a passenger on board at the time, said that he would not have steered the *Karamania* so much to the westward as the pilot of that vessel did. No damage to the steamer or cargo. Value of damage to the buoy, ₹1,800. No loss of life.

[A Departmental Committee of Inquiry was held in the office of the Port Officer, Calcutta, on the 8th April, to inquire into the circumstances connected with the collision of the steam-ship *Karamania* with the Upper Middleton buoy, when on her inward voyage to this port. The Committee recorded that after reading the order for the assembling of the Committee and the pilot's report of the fouling of the buoy by the steamer, they proceeded to examine the witnesses. The Committee observed that, on the conclusion of all the evidence in this matter, they were unable to comprehend why the pilot of the *Karamania* should have supposed that the buoy sighted ahead was the spit buoy off the Long Sand on the course stated in his letter, neither could they understand why the pilot (who was a passenger on board the steamer at the time) would not have steered so high a course as the pilot of the *Karamania*. It appeared to the Committee that the position of the steamer as given by the master in his evidence

was the most probable one when abreast the Long Sand light-ship. The courses steered from that point, according to the pilot's report, placed the vessel in close proximity to the Upper Middleton buoy, and the opinion of the Committee was that the pilot of the *Karamania* committed an error of judgment in steering so far to the northward, which would account for his having fouled the buoy.]

The Port Officer recorded that there was no doubt that the pilot was in error in the course he steered, and he should have kept the *Karamania* half a point further to the West, especially as there was a known small easterly error, and he concurred in the opinion of the Committee on that point. He also apparently under-estimated his actual distance from the Long Sand light-ship. The pilot was well known as one of the best officers in the service, and he had not had any accidents since the year 1879. There was no reason to suppose that he was not devoting his best attention to his duty, and it was not considered a case to be dealt with severely, but recommended that he be warned to be more careful.

The Lieutenant-Governor of Bengal accepted the opinion of the Port Officer and the finding of the Departmental Committee of Inquiry that the fouling and sinking of the Upper Middleton buoy by the steamer *Karamania* was the result of an accident due to an error of judgment on the part of the pilot in steering the vessel too far northward. Having regard, however, to that officer's usual carefulness and success as a pilot, His Honor was not disposed on this occasion to pass any orders imposing a punishment on him, but he was sure that the event would have the effect of increasing the pilot's vigilance for the future.

The Vice-Chairman to the Port Commissioners observed that from the pilot's written report it seemed that the collision of the *Karamania* with the buoy was an unavoidable accident, and the Port Officer merely submitted the case for information, so that the Commissioners had no means of knowing the cause whereby a valuable channel buoy and moorings had been entirely lost. From the pilot's report it appeared to the Commissioners that with ordinary care the buoy need not have been fouled; the position was well known to the pilots, and a bearing of Saugor island light-house would have been a very fair guide as to its position. The cost of replacing the buoy was about R1,800, and the Commissioners would be glad to know, whether their view of the matter was correct, to whom should they look for payment of the loss. Whereupon the Port Officer replied that the Government was in no way liable for loss sustained by the action of a pilot,—*vide* section 19 of Act XII of 1875;—that this was, so far as known, the first buoy that had been lost by the Commissioners since taking over the Port Trust through any mistake on the part of the pilot. The cost of replacing a buoy, which was not of frequent occurrence, should not be recovered from the pilot unless he was considered absolutely culpable; it was one of the contingencies for which the conservancy of the river was fairly liable, and should provide for. Should the Commissioners wish to recover from the pilot, it could be through a Civil Court, but there was much doubt whether in such a case as the present one they would ever succeed. It was not stated whether any attempt was made by the Commissioners to recover the buoy by sweeping for it.

The Lieutenant-Governor of Bengal remarked that he agreed with the Port Officer that the cost of replacing the channel buoy, which was fouled by the steamer *Karamania,* when on her inward voyage to this port, should be met from the Port Trust Funds.

88. The French iron screw steamer HAVRE [of Havre, 2,662 tons register, official number not reported], from Sydney to Pondicherry in water ballast. The steamer left Australia on the 2nd March, and all went well with her until the 31st March at noon of that day, when the vessel's position by

observation was latitude 10° N., longitude 86° E. (Indian Ocean), when the steamer encountered a cyclone which caused her to leak. It was reported that the *Havre* was making water by the butt straps of the stern tube, and was obliged to put into Point de Galle harbour for repairs. On the 3rd April the Surveyor to the port, accompanied by another Surveyor, proceeded on board in order to make a survey on the vessel, she having been found to be leaking seriously. After a careful examination they reported that the steamer was making a large quantity of water; on visiting the coal bunker on the port side immediately before the stokehole, a leak was plainly visible about 18′ from the keelson, and through this an immense quantity of water was pouring in. The injury or flaw in the plating seemed to have been caused by the vessel having worked and strained in some recent heavy weather, as the water was passing through the joints as well as through the holes of the bolts and rivets which held it together. On examination it was ascertained that the leakage was almost 200 tons a day. The master gave extracts from the vessels log book, wherein it was stated that the steamer encountered a cyclone on the 31st March whilst in the Indian Ocean and worked and rolled heavily; and as this leakage commenced then and had since continued, it could only be assumed that some straining of the vessel then caused the injury of which the leakage was the result. The Surveyors stated that there could be no doubt that it was a matter sufficiently serious to call upon them to recommend, in the interest of all concerned, that the vessel should proceed immediately either to Calcutta or Bombay, where proper and sufficient dock accommodation could be procured. On the 8th April she left for Bombay in order to be placed in dry dock for survey and repairs. The *Havre,* on the 13th, was put into the Peninsular and Oriental Steam Navigation Company's dry dock, Bombay harbour, and examined by the Surveyor to the Bombay Underwriters' Association, and was subsequently repaired, after which she proceeded to Pondicherry to load a cargo of sesame for Marseilles. Value of damage to the *Havre,* ₹3,163. No cargo on board. Value of damage to the machinery, ₹6,118. No loss of life.

APRIL.

89. The British iron screw steamer ARRATOON APCAR [of London, 1,392 tons register, official number 68524], from Hong-Kong and the Straits to Calcutta, with a general cargo. On the 2nd April the steamer under charge of a pilot was proceeding up the Hooghly river. At 3 P.M., it being the last quarter flood, the pilot was dropping the vessel up to meet the assistant harbour master, and on observing that the steamer was setting in very fast towards the buoys at Kidderpur, he ordered the engines ahead full speed and the helm hard-a-port, expecting to clear. On getting very close the pilot stopped the engines and let the anchor take the ground, but too late to avoid a collision; the steamer going over two of the mooring buoys, they going down under the starboard quarter and coming up again on the port side—one with a dent and the other with the loss of the ring. The first officer stated that the vessel arrived at Garden reach at about 2 or 2-30 P.M. on the flood-tide, and was turned round near the King of Oudh's palace; the starboard anchor was let go, and in turning the steamer backed astern, with the anchor on the ground. The crew hove the anchor up again after the vessel came abreast the Peninsular and Oriental Steam Navigation Company's wharf and had turned head down the river; there were only 15 fathoms of cable out, when she fouled the buoys. No damage to the *Arratoon Apcar.* Little damage to the buoys. No loss of cargo. No loss of life.

[A Departmental Committee of Inquiry was held in the office of the Port Officer, Calcutta, on the 16th April, to inquire into the circumstances attending the collision of the *Arratoon Apcar* with two mooring buoys at Kidderpur. The

Committee, after hearing all the evidence in this case, asked the pilot whether he had any statement to make. He stated that he was dropping the steamer up expecting to get an assistant harbour master, and with the strong tide running at the time he miscalculated the strength of it. The Committee recorded that they were of opinion that the pilot committed an error of judgment in not moving the engines ahead sooner, considering the strength of the flood-tide, to which the Committee attributed the accident to the buoys.]

The Port Officer observed that he had before recorded a case of collision with two of the mooring buoys at Kidderpur. This time it happened to the steam-ship *Arratoon Apcar* under charge of a licensed branch pilot, one of the most experienced and careful officers in the service. He had in this matter also held an inquiry. The case was a simple one, and the finding was that it was due to an error of judgment in not moving the engines ahead quite soon enough, in which he concurred ; the vessel received no damage, and one only of the two buoys received a small damage. In this instance as in the case of the *Karamania,* on account of the high character of the pilot, who had had no accidents for which blame was attributable to him since 1880, no punishment was recommended beyond a reprimand by the Government. Perhaps an intimation might be issued to the effect that in future cases officers will be liable to fine or payment of a proportion of the damage unless they could show clearly that the collision was an unavoidable accident.

The Lieutenant-Governor of Bengal accepted the Port Officer's opinion and the finding of the Departmental Committee of Inquiry that the collision was the result of an accident, due to an error of judgment on the part of the pilot in not moving the engines of the steam-ship *Arratoon Apcar* ahead quite soon enough to prevent the occurrence. Having regard also to the pilot's previous good record of service, His Honour accepted the Port Officer's recommendation that no further punishment than a reprimand should be imposed on the pilot. The Lieutenant-Governor remarked that he would be glad that the attention of all pilots should be drawn to the fact that on several occasions recently damage had been done to buoys in the port, and that in future especial caution should be exercised by all pilots with a view to the avoidance of such accidents.

90. The German iron barque APOLLO [of Elsfeth, 1,157 tons register, official number not reported], from Batavia to Diamond island (Bassein river), with 400 tons stone ballast for orders. On the 2nd April the barque was proceeding up the Bay of Bengal, and a course was steered so as to pass just within the range of Point Divi light. The master stated that at 5-30 o'clock on the morning of the following day he sighted the Coromandel coast, distant 5 miles. At 7-26 A.M. that morning sights were taken for the longitude and at noon for the latitude, and it was found that the longitude was 5 miles to the eastward by the chronometers. The horizon was clear when the sights were taken at noon, and the position of the vessel by observation was 14° 28′ N. latitude, and 80° 18′ E. longitude, and the master considered that the land at that time was visible 6 miles. At 8 P.M. the master stated that he shaped a course by which he intended to pass Point Divi reefs from 12 to 14 miles, which he thought to be sufficient considering the weather. At midnight the *Apollo* unhappily grounded in 11½′ of water off the western side of the delta of the Kistna river, in latitude 15° 44′ N., longitude 80° 50′ E. (Coromandel coast). The whole of the crew were at once mustered and the boats got out, when anchors were laid out and attempts were made to kedge her off with the aid of the boats, but were unsuccessful ; the barque was floated, but she took the sands again a few minutes afterwards broadside on. Efforts of the master and crew to get her off were continued for more than a week, but without success. It was anticipated that she would not take much injury should the weather continue fine,

but the master hoped that the vessel would be got off after lightening; the barque was lying in a basin which she had worked for herself, and in which she was afloat quite sound and tight and beyond the reach of breakers. On the 11th of the same month all endeavours having failed, a salvage contract on the principle of "no cure no pay" was entered into by the master with a shipwright at Masulipatam to float and re-ballast the vessel for a lump sum of ₹20,000. Accordingly, labour and lighters, with anchors, steel hawsers, &c., were sent down to the scene of the disaster. They were unable to render any help at first, but attempts to float her were continued up to the 11th May, without success. The greater portion of the ballast was discharged and anchors laid out, when finally, the next day (the 12th) she was successfully floated and warped off into 6 fathoms of water, whence the British India Steam Navigation Company's steamer *Booldana* towed her into Cocanada harbour on the 18th. On the 25th Surveyors proceeded on board the barque *Apollo*, then lying in the harbour, in order to hold a preliminary survey of her bottom afloat. After as careful an examination as could be made under the circumstances, the Surveyors reported (I), that the vessel was new, built of iron, and well constructed; (II), that she had on board 400 tons of ballast; (III), that the wells were sounded at 9-52 A.M. on that same day and $7\frac{1}{4}''$ of water were found, the pumps and all communications leading to the pump-well were then sealed; (IV), that on examining the hold it was found that a stanchion right aft, and one on the right side of the main hatch were slightly bent; the cement right aft on the second transom showed signs of being disturbed and a small weep was detected; (V), that the decks showed signs of much working, and the same will have to be thoroughly caulked, fore and aft; the forecastle started, to be refitted on port side, and chain pipes broken; the ventilator required refitting; the windlass was out of order; the lining of boats' skids chafed and broken; several ring-bolts about the decks started and bent; (VI), that on examination of the vessel's log-book it was found that the rigging was a good deal cut up, a bower anchor and 135 fathoms of steel chain cable, and a large quantity of cordage, &c., and other stores, had been lost, expended, and damaged, during the operation of floating the barque. They recommended that the ballast in places which had been already pointed out to the master should be trimmed so that the ceiling could be got at; the limber boards to be lifted, and the cement in the bottom carefully examined; in the meantime a sufficient quantity of stores to refit the vessel to be obtained, and the work of sending up spars, &c., be proceeded with; some of the dowels of the wood screws securing the forecastle deck to be removed and the state of the screws ascertained. The *Apollo* was thoroughly examined, as far as it was possible to do so afloat, and it was reported that no evidence had been detected of any injury such as should necessitate docking. She was perfectly seaworthy, and was repaired in the harbour afloat. The barque was finally surveyed on the 11th June, when it was found (I), that the decks had been properly caulked fore and aft; the windlass repaired and put in good working order; the masts and yards sent up; the rigging set up; the running gear rove and sails bent; that a Trotman's anchor, weighing 36 cwt., by Wood, London and Liverpool, and $1\frac{3}{4}''$ proved chain cable of 135 fathoms length, had been procured and were in their proper places; the barque was properly ballasted, drawing 12′ 3″ aft and 12′ forward; (II), that the fore and aft angle iron, situated under the forecastle, to which the towing bitts on the port side were fastened, as also the towing bitts, were in a damaged state, but as they could not be repaired at Cocanada, and did not, in the Surveyors' opinion, affect the vessel's general seaworthiness, it was recommended that those repairs be carried out on the vessel arriving at home. They were of opinion that the *Apollo* was staunch, strong, and seaworthy, and fit to carry a perishable cargo to any part of the world, and eligible as a first class insurance risk. The barque was

aground for 40 days. It was reported that an anchor and chain was supplied from Calcutta; the lost articles were lying in a very exposed position, so that no attempt at recovery was practicable till the monsoon weather moderated. The *Apollo* having been refitted and all repairs completed, sailed from Cocanada on the 15th June for Bassein, to load homewards under her original charter-party. Value of the lost articles was ₹2,115. Value of damage to the *Apollo,* ₹26,000. No cargo on board. No loss of life. (The master assigned the reason for the vessel taking the ground was the strong N.W. current he had experienced during the afternoon of the 3rd April. No Court of Inquiry was held into this accident.)

91. The British iron screw steamer SUEZ [of London, 1,390 tons register, official number 73633], from Cardiff to Hong-Kong, with a cargo of coals. On the 5th April, at 3-30 A.M., when 150 miles to the S. W. of Great Nicobars, in latitude 6° 15′ N., longitude 91°06′ E. (Indian ocean), the steamer met with an accident to her machinery in consequence of the intermediate shaft breaking; cause unknown. She was subsequently towed into Penang by the steam-ship *Rosetta.* At the time of the casualty the morning was clear, the weather fine, and the wind calm and light, and the sea smooth. Value of damage to the steamer, machinery, and cargo, not reported. No loss of life.

92. The British iron screw steamer BORGHESE [of Glasgow, 1,330 tons register, official number 63698], from Bassein (Burma) to Malta, with a cargo of rice. On the 6th April, when in latitude 11° 16′ N., longitude 64° 39′ E. (Arabian sea), the steamer met with an accident to her machinery, a connecting rod having broken. She afterwards put into Aden for repairs. Value of damage to the steamer, machinery, and cargo not reported. No loss of life. (The cause of the casualty was not reported.)

93. The British iron ship GLENLUI [of Liverpool, 1,847 tons register, official number 87944], from Liverpool to Calcutta, with a cargo of salt. It appeared that the ship, comparatively a new vessel, having been built 18 months ago sailed from Liverpool on the 3rd January; she was properly equipped, and there was on board the latest Admiralty general chart of the Bay of Bengal from Cocanada to Bassein river, besides a large scale chart of the Sandheads from False Point to Matla, and had 5 compasses and 3 chronometers. All went well with the ship up to the 6th April. On that day, at 5 A.M., the master was on watch on deck; the weather was hazy, the wind blowing a stiff breeze, and moderate sea from the S. W. At 5 o'clock on that morning the master reckoned his position to be in latitude 19° 50′ N., and 86° 48′ E. longitude by dead reckoning, and the course steered was N.E. by N. (N.E. true). The master continued on that course until 8 A.M. when he altered the course to N.E. by E., continuing on that course for about ten minutes, when the vessel grounded. At 7-30 A.M. soundings were taken at 8 fathoms, mud bottom; 10 minutes afterwards another cast of the lead was taken and bottom got at 9 fathoms. The master alleged that he calculated the distance off False Point light by bearings and soundings on his chart to be 4 to 5 miles. The *Glenlui* steered by the steering compass, and the master stated that azimuths and amplitudes were taken twice daily and the standard compass compared with the steering compass, and that as far as he observed, there was one point of easterly deviation; the vessel was going at the rate of 8 knots an hour, and there was no look-out kept on board. The master stated that he wanted to sight False Point light in order to take a fresh departure for the Pilots' station, entrance to Hooghly river, and for that reason he considered it prudent to stand in as near to the False Point light as he did, owing to the chronometers having a difference of 4 to 5 miles. The master swore that at 8 A.M. that same morning he sighted the False Point light-house, which bore N.N.W., and he laid down that bearing at the time on his chart; he then changed the course to N.E. by E., and exactly 10 minutes afterwards

the *Glenlui* went ashore on the sands, nearly 5 miles East of the light-house (Orissa coast). When the ship struck the ground, the helm was put hard up, when her head slued round to seaward and her stern remained on shore. The lead was not hove regularly, it was only cast twice, between half past 7 o'clock and the time when the accident happened, the master considered it not necessary, because the light-house was in sight. After the accident, on the hand lead being used, sounding was obtained at 3½ fathoms; efforts were made to get the vessel off by bracing the yards round and trimming the sails, but it proved fruitless, as she only slued round head to wind. There was a little swell on at the time, and in consequence the vessel bumped slightly. An hour after striking the ground the master gave orders to get the main hatch off and everything to be got ready to jettison cargo. The crew threw overboard 30 tons of salt, but without any effect. The crew then lowered the sails down and made them fast. The master, seeing that nothing could be done, ordered two boats to be lowered, which were at once got out. A large stream anchor was laid out with 75 fathoms of hawser and hove taut, and the crew jettisoned 80 tons of cargo; but, finding that the anchor came home, they stopped discharging salt. The master then went to the light-house in a boat and telegraphed to the Agents at Calcutta the position of the ship and for assistance of coolies and steam-tug. In the meantime the wells were sounded frequently, and it was found that she was making no water. The vessel lay aground with the stream anchor still out. On the morning of the 8th the steamer *Retriever* hove in sight, when she backed down and passed hawsers. The master of the tug then sent 50 coolies on board when, with the assistance of the *Glenlui's* crew, they commenced jettisoning cargo from all the three hatches. At 2 P.M. the same day on the flood-tide making the steamer tried to pull her off, but failed to do so. The men vigorously continued discharging salt till midnight, but, being exhausted from fatigue, they rested for a few hours. The next morning (the 9th), at 6 A.M., all hands resumed work up to 3 P.M., jettisoning in all some 500 tons. On that same afternoon, the water having risen, efforts were continued, when the *Glenlui* floated and was towed off and proceeded up to Calcutta, where she arrived on the 11th, and was safely moored at No. 1 Esplanade moorings. The master stated that he noticed no breakers until the vessel grounded and that he could only account for the accident by a strong westerly current setting the ship in shore, to the chronometers being out, and to the hazy appearance of the land. By the Sailing directions he expected to have an easterly current, and either he was mistaken as to the vessel's position being nearer the shore than he imagined, or there must have been an unknown bank on the spot, where, according to his position, he actually grounded. The master positively stated that at 7-30 A.M., the ship must have been nearer the land than the soundings gave, or there must have been a bank; he also imagined that he was under the influence of the N.E. current, having experienced a current in that direction three days previous. It was reported that the set to the eastward on the 6th and 7th April was rather stronger than on ordinary days, but nothing unusual. A more or less current to the East and N.E. was the normal condition of the current at the Sandheads from March to May. At 8 o'clock, when the first officer came on deck, the master was then on the poop on watch; there was no look-out man on the forecastle forward, but one man was at the wheel; the ship was being steered by the steering compass. Just as he got on the poop, the master ordered the course to be altered from N.E. by N. to N. E. by E., and 10 minutes after that order was carried out the accident happened. There was quite a fresh breeze, no sea to speak of, the water did not seem discoloured, and there did not appear to be any danger of the vessel going ashore as far as appearances were concerned. The first officer swore that he had nothing to do with the navigation at the time when he came on deck, because the master was in charge of

the ship. There was an error of 6° easterly on the N. E. course. He stated that he observed breakers on the beach when he came on deck, the weather was not thick but hazy; the land was then visible, as also the light-house. The Surveyor to Lloyd's Agents on the morning of the 13th April having made a careful examination of the ship as she lay afloat at No. 1 Esplanade moorings, reported that he could detect no appearance of straining or other injury above water. The hold being full of cargo, he was unable to examine the vessel below the 'tween decks, and it was, therefore, impossible to say whether she had taken any hurt in the bottom; but from a perusal of the entries in the log book it appeared that the swell of the sea caused her to roll and bump slightly on the sands when aground. He consequently advised that the vessel, after the cargo was discharged, be placed in dry dock for examination of the bottom before taking another cargo. The ship was on shore for 3½ days. Value of damage to the *Glenlui*, ₹17,500; cargo, ₹5,000. No loss of life.

[A Marine Court of Inquiry was held in the office of the Port Officer, Calcutta, on the 30th April and 2nd May, by the Chief Presidency Magistrate, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances connected with the grounding of the above vessel. The Court on the 30th April duly assembled and, after reading the papers received with the Resolution of Government appointing the Court, the evidence of all the witnesses produced in this case were taken, and an adjournment took place for further evidence, and on the 2nd May the Court considered their report. The Court recorded that from the evidence before them it appeared that on the 6th April, at half-past 7 o'clock in the morning, the ship *Glenlui* sighted False Point light-house, bearing N.N.W., the lead which was hove at the time giving 8 fathoms. The course steered by the steering compass was N.E. by N., the master allowing for one point of easterly deviation which existed in the steering compass, the actual course steered by the ship being N. E. The bearing and sounding placed the vessel at a distance of nearly 5 miles from the light-house. At 7-40 A.M. the lead, which was hove for a second time, gave 9 fathoms, leading the master to suppose that he was steering a proper and safe course. At 8 o'clock the light-house bore West, and the vessel's course was then altered from N.E. by N. to N.E. by E., by the steering compass, and 10 minutes afterwards she grounded; the lead which was hove after the casualty occurred gave 3½ fathoms. The weather was hazy and a fresh breeze blowing, with a moderate sea running; after the ship struck the ground, every possible effort was made to get her off by means available at the time, but without success. Thirty tons of cargo were jettisoned, but the master being apprehensive that the further lightening of the vessel would only have the effect of washing her higher up towards the shore, no further cargo was for a little time thrown overboard. The light-house was then signalled to for assistance, and on the 8th the steam-tug *Retriever* sent out from Calcutta by the ship's Agents, reached the *Glenlui*, bringing with her a batch of 50 coolies to aid, if necessary, in jettisoning a portion of the cargo. At 2 P.M. of the same day an effort was made at high-water to tow the vessel off, which failed. It was then found necessary to jettison more cargo, the *Retriever* keeping a taut hawser on the *Glenlui* all the time. At 3 o'clock on the afternoon of the next day, the cargo being still jettisoned, the ship floated off, and was towed into Calcutta. The amount of cargo discharged altogether was from 400 to 500 tons. The Court observed that the master was furnished with, and used, the proper charts, and that the course steered from the time the light-house was sighted, at about 7-30 A.M. on the morning in question, was a true and safe course. After a careful consideration of the evidence the Court were of opinion that the grounding of the vessel was attributable to the fact that the master misjudged his distance from the shore, and also to the set of a strong westerly current, which must have affected the true course of the ship.

The Court were also of opinion that the lead ought to have been kept constantly going from the time when the ship *Glenlui* first sighted the False Point light-house at 30 minutes past 7 A.M. on that morning. Had this precaution been observed, the master would probably have detected the existence of the strong current setting towards the land, therefore, the Court considered that the master was deserving of some censure. The Court observed that they were not, however, of opinion that the master's conduct was culpable to the extent which would have made it desirable or necessary to proceed with the formal investigation, which, under such circumstances, was required by the above Act. The Court added that they were of opinion that the master and crew did all in their power to get their ship off after she struck the ground. The Court admonished the master to be more careful in heaving the lead when standing in for the land on future occasions. His certificate was returned to him.]

94. The British Indian craft SAMBUK MARUTMOWLI [of Urun, 12 tons register, official number 1714], from Karánja to Avere, with a cargo of karvi and coir yarn. The craft left Karánja bandar on the 6th April, but the tide being flood and there being heavy squalls, she became unmanageable, and ran on a shoal, where she grounded opposite the Kusola creek (Bombay harbour), and afterwards capsized. The tindal stated that at first the wind was not strong, but when the craft had gone over a mile the wind began to rise, and she suddenly capsized. She was subsequently recovered with little or no damage. The cargo was all lost, value ₹400. The passengers and crew were thrown into the water; they supported themselves by clinging on to the craft till they were assisted off by the aid of other craft and safely landed on shore. (The casualty was unavoidable.)

95. The British iron screw steamer PROFESSOR [of Liverpool 1,696 tons register, official number 84181], from Cardiff to Calcutta, with a cargo of coals. On the 7th April the steamer was proceeding on an E. by S. course with no sails set, when at 2 A.M., about 180 miles S. E. of Sokotra island she struck some floating wreckage, with the result that the shaft, the stern tube and stern bush broke in latitude 11° N., latitude 57° E. (Arabian sea). At the time of the casualty the weather was fine and clear, and there was a light wind from the N. E. On the following day the steam ship *Takio Maru* bound to China, fell in with the *Professor* whilst 240 miles West of Aucutta, one of the islands of the Lakadivh Group. At the request of the master the *Takio Maru* took hold of her and towed her on her voyage to Colombo, a distance of 720 miles. On the 15th April a portion of the bunker coals was discharged, at Colombo, and ultimately she had to be lightened of a further portion for the purpose of repairing the damage; a new shaft and stern tube was fitted, and, after having completed the necessary repairs, she reloaded her cargo and left for Calcutta on the 22nd May. Value of damage to the steamer, cargo, and her machinery, £3,266. No loss of life.

96. The British iron screw steamer SAINT ASAPH [of London, 1,284 tons register, official number 87364], from Akyab to Port Said, with a cargo of rice. On the 9th April the steamer whilst in latitude 12° 52′ N., longitude 46° 01′ E. (Gulf of Aden), met with an accident to her machinery in consequence of the circulating pump breaking; cause unknown. She put into Aden for repairs. Value of damage to the steamer and cargo, £155; machinery £40. No loss of life.

97. The British Indian hodi ULANDI [of Vengurla, 4 tons register, official number 2103], from Vengurla to seaward, in order to catch fish. On the 12th April the hodi was engaged in fishing off the port of Vengurla (Bombay coast), when at 3 A.M. the crew of the hodi saw the steam-ship *Shastri* proceeding towards them, and notwithstanding they showed a flare-up light and raised a cry of warning, the steamer ran into the hodi and sank her. She was subsequently recovered with slight damage. Of the cargo, 11 fishing nets, valued at ₹650, were lost. The crew were afterwards picked up by the steamer and landed at

Vengurla. (The collision was caused by not keeping a good look-out on board the steamer *Shastri*. No official report of the casualty to the *Shastri* reached this Department.)

98. The British Indian muchwa KADERI [of Devgad, 15 tons register, official number 2878, age 42 years], from Bombay to Vengurla, with a cargo of salt. At 12 A.M. on the 14th April the muchwa, whilst proceeding out of the St. Antoni creek (Bombay harbour), during a strong flood-tide, struck against a rock, but got off immediately. She sprung a leak and put back, and after having been repaired left on her voyage. Value of damage to the muchwa, ₹50. Cargo worth ₹148 was lost. No loss of life. (The casualty was attributed to the negligence of the tindal.)

99. The Portuguese Native dhoney RAWALUÁTHA [of Panjim (New Goa), 13 tons register, official number 2795], from Chapora to Vengurla, with a cargo of salt. On the 14th April the dhoney, when on her way, was obliged to turn back on account of strong northerly winds. At 1 P.M., whilst the tindal was turning the dhoney, she sprung a heavy leak and sank off the port of Redi (Bombay coast), but was afterwards recovered. Value of damage to the dhoney, ₹130. Cargo worth ₹305 was lost. The crew swam ashore.

100. The British Indian muchwa GANESHPRASAD [of Málvan, 12 tons register, official number 2734], from Bombay to Vengurla, with a cargo of salt. On the 15th April the muchwa was moored in the Mora creek (Bombay harbour), near the St. Antoni Suza salt works, loading her cargo. As usual, she was fastened by ropes to posts driven in the ground, when at 2 P.M., owing to the tide having made rather strongly, the ropes parted, and the muchwa, having filled with water, heeled over on her side. She was subsequently recovered, but sustained damage to the amount of ₹200. The cargo was all lost, value ₹975. No loss of life.

101. The Native muchwa YESHWANTY [of Shrivardhan, 12 tons register, official number 132], from Shrivardhan to Kelshi, in ballast. On the 15th April the muchwa was proceeding towards Kelshi bandar, when at 12 A.M., on account of the strong northerly winds, she capsized off Kelshi (Bombay coast), but by the help of the crews of several craft, which were anchored in the vicinity, she was righted and subsequently taken to the bandar, where she was safely anchored. Value of damage to the muchwa, ₹200. No cargo on board. No loss of life.

102. The British iron ship GLENCAIRN [of Glasgow, 1,564 tons register, official number 78625], from Rangoon to the channel, with a cargo of rice. It appeared that the pilot took charge of the ship from the assistant harbour master at 35 minutes past 6 on the morning of the 17th April from abreast Messrs. Strang, Steel & Co.'s godowns at Dannedau, and proceeded down the Rangoon river in tow of the steam-tug *Salween;* the weather was fine and clear, and the wind light from S.W., the flood-tide, which was still running, showed a rise of 15′ on the semaphore. The pilot thereupon calculated that there would be 30′ of water in the Monkey point channel, so that the vessel should get through with dead slack water. When the ship was abreast the Monkey point battery it being observed that the ship *Zouave* was lying in the Pegu river athwart the channel, the pilot instructed the tug to keep well on the northern edge of the channel in case of any set out of the Pazundaung creek. Shortly after passing the battery, the *Salween* took a broad sheer to port towards Pazundaung creek, and the pilot, seeing that the tug was evidently unable to recover herself, he at once ordered her hawser to be let go, which was done; but owing to the steamer being broad on the ship's port bow, with an inclination to cant to port, which, as stated by the pilot, could easily have counteracted by the helm had the tug been ahead, the *Glencairn* also took a sheer, and before she could answer her helm, having good way on her, she grounded on the Pazundaung bar at 6-50 A.M. in the Rangoon river (Burma coast). The master of the tug *Salween* stated that when

the steamer got to Monkey point channel the ebb-tide was making, and the ship getting into the eddies, she would not steer after the steamer; and owing, no doubt, to the insufficient power in the tug, the casualty could not have been prevented. The pilot attributed the accident to the broad sheer taken by the steamer which canted the ship's head off her course. He said that it was also caused through keeping the vessel well to the northward to avoid any southerly set there might be from Pazundaung creek, thus leaving the ship little room for a sheer to the northward, consequently the vessel took the ground before she could answer her helm. The anchors were all ready, but the pilot, seeing that the grounding was almost inevitable, considered it highly imprudent to use one, as in all probability the *Glencairn* would run over the anchor and settle on top of it, and in that case it would have gone through the bottom of the ship—a far more serious affair than grounding on soft mud. The master of the ship said that his vessel proceeded down the Rangoon harbour with all safety until off Monkey point, when the *Salween* took a sheer to the northward and canted the ship's head towards Pazundaung creek, and before she could recover herself, the *Glencairn* grounded; the anchor was not let go, fearing that it would go through the vessel's bottom. The master attributed the whole accident to the bad steering of the *Salween,* which fact, he said, spoke for itself, for, when the warps were let go, the tug turned round and steamed direct towards the ship with her helm hard-a-starboard, but did not answer it, and fouled the *Glencairn* and stove in a plate on the quarter. The master stated that he held the pilot of the ship blameless for the accident. Soundings were immediately taken and 21′ of water was found on both sides of the vessel from aft to break of the forecastle; from thence forward 20′; the ship's draught forward 20′ 10″, aft 21′ 3″. As the tide fell the vessel sank into the mud, but was perfectly upright and sustained no material damage through the grounding. After the *Glencairn* had cast off the steamer, the latter vessel in turning round, evidently with the intention of speaking, came into collision with her, striking the ship on the starboard quarter and stove in one of the upper plates. At 5-30 P.M., endeavours were made by the tugs *Salween* and *Ava* to get the vessel afloat, and at 6 o'clock the same evening the ship was towed off, after having been aground for 11 hours, and anchored in a safe berth below Hastings' moorings. Value of damage to the ship, ₹5,306; cargo not reported. No loss of life.

[A Special Court of Inquiry was held in the Court of the Deputy Commissioner, Rangoon, on the 5th May, by the District Magistrate, under the provisions of section 6 of Act XII of 1883 (British Burma Pilots Act), for the purpose of investigating the charges brought against the pilot, who was licensed under the said Act, of having either shown incompetency or been guilty of misconduct in the discharge of his duties as pilot of the ship *Glencairn*. The Court recorded that of the three assessors, one, the master of a sea-going vessel lying in the port, was appointed by the Vice-Chairman of the Port Trust as provided by Rule LXX of the Rangoon Pilot rules, and the remaining assessors—a merchant and a pilot—by the President under Rule LXXI. Under section 6, clause (2), of the Act, the Government Prosecutor was appointed to conduct the investigation. A copy of the statement of the grounds, under section 12 of the Act, upon which such charges were framed, and of the charge itself were then handed to the accused before the investigation commenced. The Court charged the pilot as follows:—(1), that he attempted to take the ship *Glencairn* through the Monkey point channel with the aid of only the single tug steamer *Salween*, which was insufficient for the purpose; and (2), that he left the port at Rangoon at a dangerously late period of the flood-tide. The Court recorded that, pursuant to citation, the defendant, a licensed pilot of the port, was called, and the papers and correspondence relating to the case were produced, after which they were read and filed. The Court then proceeded to hear evidence,

whereupon the Government Prosecutor replied that he considered it unnecessary to call any evidence, as the pilot had pleaded guilty to the charges, and he put in a document. The written statement of the accused, together with the certificate of the master of the *Glencairn*, were then recorded. The Government Prosecutor stated that the statement of the pilot was correct so far as the prosecution was concerned. The accused then handed a written statement to the effect that he saw no other course open to him but to admit that the charges brought against him in the case of the grounding of the ship *Glencairn* were correct, and to avoid trouble and loss of time to the Court, preferred to plead guilty at once. He submitted that he really had no grounds of defence, and threw himself on the mercy of the Court in their dealing with this case, begging that the Court would take into consideration his 6½ years' successful services as a pilot. The Prosecutor thereupon informed the Court that the accused bore an excellent character as a careful and skilful pilot. The Court then directed the accused to withdraw, in order that they might consider their finding and order. The Court observed that on the pilots' own admission they found that he was guilty of the charges as framed by the Local Government, but, taking into consideration the previous good conduct of the licensed pilot as reported by the Government Prosecutor, and the fact that the master of the ship *Glencairn* exonerated the accused from all blame, judged that the case would be met by inflicting a nominal punishment on the pilot as a warning. The Court, therefore, recommended that he be reduced from the list of the first to the second grade pilots for the space of one month.]

The Chief Commissioner of British Burma accepted the finding of the Special Court of Inquiry, and, under the provisions of section 17 of the above Act, directed that the pilot's license be reduced from the first to the second grade for one month.

103. The British iron screw steamer NEWCOMEN [of Greenock, 1,388 tons register, official number 87376], from London to Bombay, with a general cargo consisting of cement, dynamite, &c. The steamer left London on the 14th March, and up to the 15th April nothing unusual occurred when she reached Bombay. On that same day in proceeding up the harbour she took a pilot on board and anchored in the stream. At about 7 o'clock on the morning of the 17th a first grade pilot (who was also an acting harbour master) boarded the vessel for the purpose of conducting her into the Princes' dock. The vessel, after discharging her cargo of explosives in the stream, weighed anchor at half past 9 A.M. and after having turned round steamed for the dock, going at the rate of 4 or 5 knots an hour. The pilot and the master were on the flying bridge, from whence the vessel was steered by steam, and everything in respect of the steam steering gear was in order, and the master swore that she steered very well. An able seaman was at the wheel, and the first officer, the carpenter, and others were on the look-out on the forecastle; the chief engineer was in charge of the engines, and the second and third engineers were also on duty. Instructions were communicated from the flying bridge to the engine-room by telegraph, and it seemed that the master personally attended to the telegraph and to the pilot's orders. The pilot deposed that when below Cross island he eased the steamer down to half speed, and almost immediately afterwards went slow until the dock channel was entered, as an eddy-tide, caused by Cross island, made the steamer's head go to port against her helm. Directly the vessel entered the channel at 10-15 A.M. the pilot perceived a large cargo boat, laden with cotton, nearly two ships' lengths from the dock entrance, lying right athwart the bows, in the centre of the channel. The boat was evidently trying to cross the stream against the tide, which was a little more than half-flood, to go to the southward, but the breeze that blew from the North and East seemed barely sufficient to enable her to stem the tide. To prevent a collision, the whistle was sounded two or three

times to attract the boat's attention, and, after the lapse of three minutes after the whistle was first sounded, the engines were stopped for some time. On approaching her the pilot shouted to the crew of the boat to keep out of the way, but the boat took no heed, and neither did she alter her helm, or make any effort to get out of the way, because all the men appeared to be fast asleep on the bales of cotton with the exception of the man at the tiller. The *Newcomen* with the headway she had was almost on the top of the boat, which was then two cables' lengths from the entrance to the dock and one cable from the North Channel beacon. The pilot, to avoid running the boat down, reversed the engine's full speed, which caused the vessel's head to cant to starboard very rapidly owing to the steamer's stern being in nearly still water and her bow in a strong tideway. The master positively stated that the vessel passed pretty close under the stern of the boat at the rate of 1½ or 2 knots, and only a few revolutions were given sufficient to twist her head clear of the boat. Directly the pilot saw that the steamer had cleared the boat, he ordered the helm to be put hard-a-starboard and the engines to be put slow ahead. By this manœuvre the *Newcomen* passed the stern of the boat, going 1½ or 2 knots, but when it was found that she would not go sufficiently to port to enter the dock, he stopped the engines and ordered them full speed astern, and, as she still drove on to the wall, the pilot, almost with the same breath, directed the anchor to be dropped in order to stop the vessel in time. About 20 fathoms of cable were paid out, but the steamer was too close to the wall at that time to bring up to, and in a couple of minutes afterwards the *Newcomen* came into collision with the northern pier head, some 100′ from the entrance to the Princes' dock, Bombay harbour. The engines were going full speed astern and the steamer's stem striking violently the wall, a little on her starboard side, thus considerably damaging the vessel's bow. After the collision ropes were got on board, the anchor was hove up, and the steamer, with the aid of the dock officials, was safely taken into dock. The chief engineer stated that he went down into the engine-room after he saw the native boat getting in the steamer's way. At that time the second engineer was working the engines whilst the chief was in charge of them. They both swore that the vessel went full speed after she got underweigh until 20 minutes past 10 o'clock on the morning in question, when she proceeded at half speed. The next order was at 10-25 A.M. "Full power astern;" the next at 10-28 A.M. was "Stop;" the next at 10-30 A.M. was "Half speed ahead;" the next at 10-32 A M. "full speed astern;" and the last order was to stop, at 10-35 A.M., when the accident occurred. They both positively stated that those orders were duly carried out; that the speed of the steamer at full power was reckoned to be 9 knots, and 5 knots at half speed; and that there were at the time of the casualty 75lb of steam on. The first officer said that, after the *Newcomen* passed the boat, he received an order to let go the anchor, but had no idea how long after she passed the boat the order was given; but it was only given once, and it took two or three seconds to let go the anchor. The acting dock master, Princes' dock, stated that, as the vessel was approaching the wall, he directed the boats to be cleared away, and, after going closer to the wall, he hailed why the anchor was not let go, and heard a voice from the bridge say, "I have ordered it to be let go." The acting harbour master alleged that from his experience the steamer might have passed either side of the boat, but there would have been no difficulty had she gone to the southward, for the tide was then running up, and, the boat being driven with it, the anchor, if dropped immediately after passing, would have checked the steamer's head to the tide, whereas the steamer passed to the northward of the boat. The acting harbour master, as an instance of his experience, founded on fact, stated that a similar occurrence happened three years ago when he was in charge of the steam-ship *Earl King*. The vessel was nearly in the same position

as the *Newcomen*, and had to give way to a native boat in the dock channel. The carpenter swore that the order to let go the anchor was only given once, and it took or 5 seconds to unscrew the windlass. The pilot accounted for the casualty by the boat being in the way and being stationary: there was scarcely wind enough for her to stem the tide. If she had put her helm up the pilot considered the steamer would have cleared the boat and safely proceeded into the dock. He said that he expected the boat to move out of the way before the steamer came up. The pilot further contended that, had he continued going astern and let go the anchor, the accident with the pier head would not have occurred, but the steamer would probably have taken the ground on either side of the channel, as there was barely room in the channel to allow a vessel to swing. The master stated that he remarked to the pilot when the vessel was going half speed ahead that she should have the engines reversed, as he was afraid that the steamer would not fetch the entrance. On this the pilot replied that the vessel must get clear of the moorings of a buoy before the engines could be reversed. The master was of opinion that the accident was caused by there being too much way on when the vessel cleared the boat to let go the anchor. At 4 P.M. on the 17th April, the Shipwright Surveyors, with the Engineer Surveyor to the port, having examined the vessel as far as it was practicable to do so, found that the stem from about the 26′ mark was bent slightly over to port, increasing further down to below the water line, and it was bent nearly 9″; the plates appeared cracked and rivets loose, and the compartment forward of the collision bulkhead was full of water. The master not being on board, the Surveyors instructed the first officer to request the master to make an application for a survey, and advised that the vessel be sufficiently tipped to allow of a thorough examination being made. On the 23rd and 24th she was surveyed by Lloyds' Surveyor assisted by another Surveyor of shipping. They examined the damage above water and inside, and observed that the vessel had still her Kurrachee cargo on board (the dynamite excepted, which was stowed in lighters lying in the harbour). She drew 12′ 6″ forward, and the main body of the damage was still under water, as much water was finding its way into the collision compartment; the main stem and the starboard bow plates from the 24′ mark to the 12′6″ mark were bent bodily over to port, at almost a right angle to the proper position; 5 or 6 plates on both sides cracked and rivets broken. They stated that the full extent of the damage could not be ascertained until the vessel was docked and the damaged part exposed. They were of opinion that the steamer should be placed in the Peninsular and Oriental Steam Navigation Company's dry dock at Mazagon as soon as possible, and for that purpose part of the Kurrachee cargo be discharged, if necessary, to get into dock, where she was again surveyed. The Surveyors stated that the vessel was found dry whilst in the dock, where she had been placed in accordance with their recommendation. After a careful survey of the hull and fracture of the bows, they found the stem very much twisted and standing at right angles from its original position and broken in three places, *viz.*, one at 6′ from the line of the keel, one 21½′, and another at 24½′, the stem measured 10′ × 3′; 8 plates on each side were doubled up, one of which was broken. They recommended that the entire stem be taken out and a piece welded on to make it the required length, and to be fitted and scarped top and bottom with 22 scarps; 8 plates on each side damaged, to be taken out, straightened, and re-placed, and the broken plates to be renewed. There were no stringer plates damaged; the whole of the plates in the bows attached to the stem, to be rivetted top and bottom, and any defective keel rivets and butts, to be caulked and made good; the vessel being steel built, to be repaired with Lowmore iron, and rivets, where steel cannot be procured. Those were all the repairs necessary, and which were advised to be done as soon as possible. On the 28th the Shipwright Surveyor, together with the Engineer Surveyor to the port, boarded the steamer lying in the Peninsular

and Oriental Steam Navigation Company's graving dock for the purpose of examining her hull. They reported that the stem (iron), much bent and broken to port at the 6′ mark, had been cut out and straightened for the purpose of scarping the part up to 21′·6″ mark from base of keel. On attempting to straighten it, a defective part was found 3′ further up, *viz.*, at the 24′ 6″ mark, which necessitated the remainder of the stem being removed for the purpose of welding a piece on, and scarping the same the whole height, from extreme to base of keel, being about 43′ 3″, the size of the stem was 10″×3″; 8 plates on each side had been removed, and 15 others, after being put into shape, to be fitted in again; and one plate (No. 6) to be renewed on the port side. Those plates were of steel and were of various sizes, from 2′ to 9′ and in lengths from 3′ up to 10′ 6″, and were $\frac{7}{16}$ of an inch thick. The Surveyors also very carefully examined the frames, but found none broken or disturbed. They were therefore of opinion that when those repairs were carried out the steamer would be seaworthy and able to load and continue her intended voyage. On the 5th May, Lloyds' Surveyor proceeded on board the steamer *Newcomen* in order to survey her for completion of repairs, and after going carefully over them, he found that all had been properly executed in a workmanlike manner as under: The whole of the stem had been removed, repaired, and made good; two new Lowmore iron plates had been put in on either side, 6′ long, in bow, and two broken ones condemned; the other seven plates on either side had been broken out, re-rolled, fitted and riveted with Lowmore iron rivets; and all the defective keel rivets had been made good. The above repairs having been finished to the Surveyor's entire satisfaction, he was of opinion that the steamship *Newcomen* was in every way seaworthy and fit to carry a dry and perishable cargo to any part of the world. The Surveyor examined her very minutely, and reported that to value her for general average contribution he estimated that her then present value in her damaged state was £25,107, or at exchange 1*s.* 7½*d.*, ₹3,09,009, and he believed that she would not fetch more than that sum if put up at auction sale at Bombay. The Surveyor also examined 165 casks of cement which had been discharged in Princes' dock, and found that the casks had been slightly wet on one end only, but on testing the wet-stained portions, it was observed that they had been wet by salt water. The Agents of the steamer *Newcomen* made a claim for damage done to that vessel, and the Port Trustees informed them that under section 87 of the Port Trust Act they were not responsible for the claim. On the 21st, the Agents in acknowledging that intimation stated that they would refer the matter home to the owners of the vessel and await instructions with regard to taking further action in the matter; but nothing more had been heard about it. Value of damage to the *Newcomen*, ₹25,975; cargo, ₹1,234. The damage to the Princes' dock wall was so slight that no repairs were made. No loss of life.

[A Marine Court of Inquiry was held in the Fort Police Court, Bombay, on the 29th and 30th April and 4th May, by the Chief Presidency Magistrate, under the provisions of sections 7 and 9 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances connected with the accident which happened to the steam-ship *Newcomen* whilst being conducted through the Princes' dock channel under pilotage charge with the intention of entering the Princes' dock on the 17th April, by having fouled with one of the dock piers and sustained serious damage to the vessel's stem. The Court on the 29th April duly assembled, and after reading the papers received with the Resolution of Government appointing the Court, the evidence of all the witnesses produced in this case was taken, and adjournments took place on the 30th April and 4th May for further evidence, and on the latter date they considered their report. The Court recorded that the steamer arrived safely in Bombay harbour from London on the 15th April with a cargo of general merchandize, and was well found in all

respects. On arriving in the harbour a portion of the cargo, consisting of explosives, was discharged, and on the 17th, at 7 A.M., a first grade pilot (also an acting harbour master) boarded the steamer for the purpose of conducting her into the Princes' dock; she then drew about 21′ of water. The vessel was got under weigh at 9-30 A.M., and the pilot stated that after turning the *Newcomen* round she went full speed ahead towards the dock; the pilot and the master were on the flying bridge, from where the steamer was being steered by steam, and everything in respect to the steam-steering gear was in order, and the master stated that the vessel steered very well. An able seaman was at the wheel, and the first officer, the carpenter and others were on the look-out on the forecastle; the chief engineer was in charge of the engines, and the second and third engineers were also on duty. Orders were communicated from the flying bridge to the engine-room by telegraph, and the master personally attended to the telegraph and to the harbour master's instructions. The pilot stated that he continued at full speed till he got below Cross island, when he eased the vessel down to half speed, and almost immediately afterwards went slow till the dock channel was entered. On entering the dock channel the pilot stated that he observed a boat laden with cotton some distance ahead trying to get across the channel to the southward, there was a strong flood-tide running at the time, and there was scarcely wind enough for the boat to stem the tide. The steamer's whistle was blown two or three times and the engines were stopped, and on approaching the boat the pilot called out to the crew of the boat to keep out of the way. It seemed that the men took no notice of the steamer's whistle, nor of the calling out. Meanwhile, the pilot stated that, the vessel, with the headway she had, was almost on the top of the boat, which was about two cables' lengths from the dock and between the vessel and the Prince's dock entrance. In order to avoid sinking the boat, the pilot directed the engines full speed astern, which caused the *Newcomen* to cant to starboard very rapidly owing to the stern of the vessel being in nearly still water and her bow in a strong tide way. Having got clear of the boat, he ordered the helm hard-a-starboard and the engines slow ahead, but finding the vessel would not come sufficiently to port to enter the dock, he stopped the engine and directed them full speed astern, at the same time ordering the anchor to be let go. Almost immediately afterwards the steamer struck the northern wall of the entrance to the Princes' dock and sustained serious damage, the stem having been broken in three places and 16 plates, 8 on each bow, having been damaged. Ropes were then got on board, the anchor was weighed, and with the assistance of the dock officials, the vessel was taken into dock. The Court observed that the evidence of the chief and second engineer was that the steamer went full speed after she got under weigh until 10-20 A.M., when she proceeded at half speed. The next order was at 10-25 "full speed astern;" the next at 10-28 was "stop;" the next at 10-30 was "half speed adhead;" the next at 10-32 "full speed astern;" and the next at 10-35 "stop;" and that those orders were duly carried out. The vessel struck the North wharf between 10-32 and 10-35 A.M. The pilot attributed the accident to the boat having come in the way, and stated that there was no other course left to him than the one he adopted. He expected the boat would have gone over to his starboard bow and thus allowed the steamer to pass safely into the dock. After a careful consideration of the evidence, the conclusion the Court arrived at was that the principal cause of the steam-ship *Newcomen* fouling the dock wall of the Princes' dock on the morning in question was her being navigated at too high a rate of speed from the time of her entering the dock channel and when the cargo boat was seen to be in that channel. On the steamer entering the channel, the pilot saw the cargo boat and decided to steer straight for her, expecting she would get out of the steamer's way. Having decided so to do, the pilot ought to have approached the cargo boat at the slowest speed compatible with the circumstances so as

to have been able to manœuvre the steamer either ahead or astern with a few revolutions of the engines and still have maintained her position in the channel. Instead of doing so, he approached the boat at half speed, and when he saw that the boat did not get out of the steamer's way he had to reverse the engines full speed. When the steamer cleared the boat she had canted very considerably to starboard and across the channel. It was then necessary to change the direction of her head considerably in order to head for the entrance to the dock. The pilot then put the engines half speed ahead and the helm hard-a-starboard. The steamer at that time was going ahead—a flood-tide was drifting her to the northward of the entrance, and her own distance from the dock was only about her own length. In the opinion of the Court it was then impossible for the steamer to have manœuvred to fetch the entrance of the dock with the assistance of an anchor or a check from the bow to some position astern of her. The Court observed that they were very doubtful whether, if the anchor had been let go sooner, it would have prevented the steamer from coming into collision with the dock wall. The Court considered that the pilot was to blame for not having proceeded at a slower rate of speed when the vessel entered the dock channel, and decided to steer for the cargo boat, and that he committed an error of judgment in not having kept his engines reversed and in not letting go his anchor when he first went astern to clear the boat.]

The Governor of Bombay remarked that a copy of the proceedings and report of the Court of Inquiry should be forwarded to the Port Trustees, Bombay, for such notice of the conduct of the pilot as they deemed fit to take.

The Port Officer, Bombay, recorded that the position in which the *Newcomen* had been anchored to discharge explosives was distant from the Princes' dock entrance as near as might be $4\frac{1}{4}$ miles, allowing a quarter of a mile for turning the vessel; it might be assumed that between the time she weighed anchor until she narrowly escaped a collision with a *prow* (a large cargo boat) in the dock channel, the vessel had traversed a distance of about $4\frac{1}{2}$ miles; the tide was running flood at the rate of two miles per hour. The evidence, in the opinion of the Port Officer, was not exhaustive as to the exact time at which the steamer started, and at which the several alterations in regard to the movements of the engines were ordered, nor as to the actual movements which were ordered, and which actually took place. The master's statement upon those points was extremely vague; the engineers' evidence regarding the time the vessel started was not recorded, whilst the time on each occasion the *motions* of the engines were supposed to have been *altered* were carefully recorded, also the evidence of the master and harbour master as to the time of *starting* was recorded; but the exact time of each change in the motion of the engines was *not*. It was very possible that the time-keepers, by which those matters were noted, did not agree—two parties being in the engine-room and the other two on the bridge, and consequently the exact time between the vessel having started until she arrived in close proximity to the native craft could not be positively arrived at. Assuming, however, the time of starting to have been half past 9 o'clock, as stated by the master and the harbour master, and the time when the order "full speed astern" to have been received at 10-25 A.M. as given by the engineer, the steamer had occupied 55 minutes in proceeding $4\frac{1}{2}$ miles; and allowing her to have been set only half a mile by the tide, the vessel had been propelled only 4 miles in 55 minutes. The second engineer stated that on the first occasion, after starting, the engines went half speed at 10-20 A.M.; this was 50 minutes after starting, and taking the dock channel to be half a mile in length, the *Newcomen* must have been at the entrance to the channel at that time. Now, it was a well-known and recognised system that when merchant vessels were moving for only short distances (in order to avoid unnecessary expenditure of fuel) only sufficient steam was raised to enable the vessel to tra-

verse the required distance. On more than one occasion the engines of steamers had failed to work when required to do so, for want of a sufficient pressure of steam, although the chief engineer had said in his evidence that there was 75lb which was only 5lb lower than full pressure; he had not stated that that amount of pressure was maintained throughout the whole time or that it existed in the dock channel; in fact, considering that with 80lb of steam the steamer ran 9 knots, 75lb pressure would give a speed of nearly 8 knots, and as the steamer only went 4 miles at full speed in 50 minutes, it was simply impossible that she could have had the benefit of 75lb of steam throughout the time she was going full speed. There was also a recognised system of speed at which harbour masters and pilots conducted vessels into and through the dock channel. No harbour master or pilot would ever for one moment think of entering the dock channel steaming 8 knots. It was quite possible that the *Newcomen* was proceeding *full power* at the time she entered, but *that* full power shown above was only 4 knots, which was not a sufficient speed to enable her to keep her course and position whilst steaming across the tide, and the recognised system *was* that the engines should be slowed or even stopped as the case of the wind and tide might be; the trim of the vessel began after passing the beacon, and the fact that the pilot had been hailing the crew of the native craft for some time, as acknowledged by the master and the first officer, clearly proved that the steamer must have been approaching the boat very slowly; the Port Officer stated that after a most careful consideration he could not arrive at the conclusion that the steamer *Newcomen* was navigated at too great a speed for the requirements of the circumstances she was being navigated under. As regards the pilot's action immediately preceding the accident, it was very evident that, after reversing the engines to avoid the native craft, he should have dropped his anchor, and when clear, tripped it again, when he could have steamed into the dock entrance without difficulty; if there was any danger, by dropping the anchor of the vessel, tailing or touching on the North bank of the channel in swinging, he could have moved the engines ahead to prevent this, instead of which he attempted, after passing astern of the boat, to manœuvre the *Newcomen* by her engines only within an insufficient space with the flood-tide setting her bows inshore against the North dock wall. In this matter the pilot acted most unwisely and injudiciously, but allowing this, the Port Officer considered that he only committed a grave error in judgment which led to unfortunate results. The pilot had been an extremely careful, steady, and successful officer during his service of over 15 years; until the case of the steamer *Abana* in March of the same year (1885) he had not met with any accident. The Port Officer mentioned that the pilot received a severe shock to his nervous system by having been immersed for several hours in a heavy monsoon sea, when the *Fœrie* was swamped at the entrance to Bombay harbour in August 1879, from which he had never entirely recovered his former strength. The Port Officer, therefore, considered that whilst the pilot undoubtedly committed a grave error in judgment, his case was deserving of lenient consideration, and recommended that he be severely reprimanded and reduced one step on the list of first grade pilots for the period of one year.

The Port Trustees, Bombay, after a careful perusal of the Court's proceedings and other papers and correspondence in the case, observed that the Court considered that the pilot was to blame for having proceeded at too high a rate of speed when he entered the dock channel and found that a cargo boat was in his way, and that he committed an error of judgment in not having kept his engines reversed and letting go his anchor when he first went astern to clear the cargo boat. The Harbour and Pilotage Committee approved of the recommendation of the Port Officer, and advised in view of the opinion expressed by that official that the pilot's conduct in the matter might be owing to his nervous

system having been affected by his narrow escape from drowning, and exposure in the water for many hours, when the Pilot boat foundered in 1879; that the Civil Surgeon's opinion be obtained as to whether the pilot was fit for his duties; also that the Port Officer be asked to report whether there were any other harbour masters or pilots about whom he was at all doubtful in that respect. The Port Trustees decided that the pilot be severely reprimanded and reduced one step on the list of first grade pilots for the period of one year as recommended by the Port Officer and approved by the Harbour and Pilotage Committee, the year to be reckoned from the 9th July, and the other steps advised by the Harbour and Pilotage Committee should be taken.

104. The British iron screw steamer BANCOORA [of Glasgow, 2,170 tons register, official number 84281], from Suwákin to Calcutta in ballast. On the 17th April the steamer in charge of a pilot was proceeding up the Hooghly river; at 4-30 P.M. the vessel was dropping up the river from Garden reach with her head down the reach, and when just below the Centre Bishops' college sand buoy, it being on the steamer's starboard quarter, the pilot backed the engines astern, but the vessel being very light, and owing to a strong breeze blowing from the southward, the *Bancoora's* bow immediately flew off towards the sands. The pilot thereupon, as the vessel was about to foul the buoy, stopped the engines, but notwithstanding she struck the Centre Bishops' college sand buoy just before the bridge, and it passed away forward. The vessel had little or no way on at the time, and there was very little tide running. No damage to the *Bancoora*. No cargo on board. The buoy had the top plate considerably bulged. The buoy was again damaged by the steam-ship *Khandalla* within 13 days after having been fouled by the steam-ship *Bancoora*, and finally repaired by the British India Steam Navigation Company (the Agents of the steamers) at their own cost. No loss of life. (The casualty was accidental.)

105. The British wooden barkantine RUTH TOPPING [of Liverpool, 319 tons register, official number 70949], from Port Natal to Calcutta in sand ballast. On the 18th April the barkantine was proceeding up the Hooghly river without steam and in charge of a pilot; at 1-15 P.M., the weather was fine with a light S. W. wind, and on the first of the flood, the vessel was sailing up Sankral reach. On approaching the Sankral Spit buoy the pilot hauled the vessel up for Garden reach, but the tide being too strong, the pilot was unable to fetch in, and he endeavoured to bring the barkantine up with her anchor, but the vessel, with 22 fathoms of chain out, touched the mud bank off the Sankral bazar immediately above the creek with her heel and swung alongside it. Attempts were made to get her off at high-water, but without effect, and she eventually got off at high-water the next day with the assistance of the steam-tug *Hunsdon*, after having been aground for a day. On the morning of the 30th the Surveyor to Lloyds' Agents proceeded to the Caledonia dry dock, Howrah, to make a survey on the bottom of the barkantine *Ruth Topping*, and after making a careful examination it was reported that the vessel had taken no injury in the bottom, no metal had come off, and the rudder and beams were in good condition; the windlass body was strained and damaged, and the purchase rings slack. This damage, it was stated, occurred whilst the master attempted to heave the vessel off the ground. A new windlass body, to be made of teak or sâl wood, the full size of the old purchase rings, and the old pawl purchase rings fitted tight on the body without wedges, and the bolts of the pauls and clutch boxes renewed and all the windlass gear overhauled and put in good working order; a 12' towing hawser broken in two, stranded and chafed (this was stated to have been done when towing the vessel off the ground), to be replaced with a new towing hawser; the waterway seams showed indication of straining amidships, and the caulking of the seams in the topsides was slack. The Surveyor recommended that the topside from the metal up be well horsed and carefully caulked,

that the waterway, seams, stanchions, and deck throughout be carefully caulked. A defective scupper on the port side abreast the main hatch, to be taken out and replaced with a new lead scupper; the main hatches worn and broken, to be replaced with new hatches of solid wood, instead of carlings and planks like the old hatches. On the 21st May the Surveyor finally held an examination of the repairs of the barkantine, lying afloat at No. 6 Hastings' moorings with nearly all her cargo on board. It was reported that all the repairs had been well and faithfully executed, except that the four old main hatches, advised to be condemned and replaced with new hatches made of solid wood instead of carlings and planks as before, had been replaced by two new hatches made with carlings and planks the same as the original ones, and the other two repaired with four pieces of new planks nailed on to the old carlings. The hatches, however, were stronger and better than they were before, and being supported by a strong back in the middle of the hatchway, they were fully as safe as the original hatches, but solid hatches would be more secure when beating down the Bay of Bengal against a strong S.W. monsoon. The decks were reported to be tight, and the vessel making no water. Besides the above repairs advised, a defective chain plate bolt of the fore rigging on the port side had been renewed and two new cast-iron warping chocks fitted on the forecastle head. The *Ruth Topping* was therefore tight, staunch and strong, and fit to carry a dry and perishable cargo, and was, in the Surveyor's opinion, for a wooden vessel, a first class insurance risk. The vessel was aground for 24 hours. Value of damage to the barkantine, ₹2,019. No cargo on board. No loss of life. (The casualty was accidental, as it was caused by light wind and strong tide.)

106. The British iron screw steamer EURIPIDES [of Liverpool, 1,153 tons register, official number 87859], from Maulmain to Port Said, with a cargo of rice. It appeared that on the 19th April the steamer *Euripides* was anchored at Half-way creek in the Salween or Maulmain river (Burma coast). On the following morning, shortly after the steamer *Ganger Rolf* started, she weighed anchor and proceeded down the river under charge of a pilot. On that morning at ten minutes past 7 o'clock the pilot stated that whilst passing the Godwin Spit buoy about 40 yards distant, going out of the river towards the Reef buoy, he noticed the Norwegian steamer *Ganger Rolf*, which vessel was on the *Euripides'* port side abaft the beam, suddenly port her helm, evidently intending to pass under the stern of the *Euripides*. Whereupon the pilot seeing that a collision was imminent, he instantly ported the *Euripides'* helm; thus bringing the latter vessel's quarter to the *Ganger Rolf's* gangway, and the *Euripides* came into collision with the *Ganger Rolf* at the entrance to the Salween or Maulmain river between the Reef and the Godwin Spit buoys; the former vessel's port quarter slightly striking the *Ganger Rolf* a little abaft the starboard gangway, nearly 40′ from the stem. No damage to the *Euripides*. No loss of cargo. No loss of life. (The cause of the collision was owing to the pilot of the steamer *Euripides* having twice attempted to pass the *Ganger Rolf*, both outward bound, at the entrance to the Salween river, where the channel was very narrow.)

[A Court of Inquiry was held in the office of the Port Officer, Maulmain, on the 20th May, by the Assistant Commissioner, Amherst, under Rule XXVI of the Maulmain Pilot rules, to investigate the circumstances attending the collision which occurred between the above-named steamers, both outward bound, at the entrance to the Salween river on the morning of the 20th April. The Court recorded that having assembled pursuant to citation, the defendants (two licensed pilots of the port of Maulmain) were called and charged with neglect and unskilfulness in the discharge of their duties in having allowed the steamers *Euripides* and *Ganger Rolf*, under their pilotage charge, to come into collision with each other. The papers and correspondence embodying the statement of the case were then laid before the Court by the Government Prosecutor, and after a

careful perusal of them, the Court proceeded to hear any evidence that might be forthcoming. The Prosecutor thereupon informed the Court that both steamers having gone to sea, he had no witnesses to call, and had no further communication from the masters of the vessels in question. From inquiries instituted by the Prosecutor the accident appeared to have been a slight one, although the master of the steamer *Ganger Rolf* asserted that his vessel had received considerable damage, and stated that he would report further from Point de Galle. The pilot, however, of his vessel stated that beyond two iron rails broken and a boat's davit bent, no other damage was caused to the *Ganger Rolf*. The pilot of the steamer *Euripides* then produced a letter received from Point de Galle from the master of that vessel, which he asked to be read. The Court, after reading the letter, examined the pilot of the *Euripides*. He stated that the Reef buoy at the time of the accident bore S. W. by S. $\frac{3}{4}$ S., and rather nearer the Godwin Spit buoy than the Reef buoy. He had no reason for overtaking the *Ganger Rolf* in so narrow a channel, the breadth of which was about two cables' lengths, or 404 yards. He said that he maintained the same speed all the way down the river, and considered there would have been no danger of a collision had the pilot of the *Ganger Rolf* kept his proper position; the *Euripides* at the time was drawing over 21′ and the *Ganger Rolf*, only 19′. The *Euripides* before reaching the No. 1 or Godwin Spit buoy, was passing the *Ganger Rolf* on her starboard side 30 to 35 yards off, and when she brought the *Ganger Rolf* abaft her gangway, the second officer, who was on the bridge with the pilot, called out, "Look out, pilot, the *Ganger Rolf* is porting her helm;" and observing that that vessel did port, he also ported to avoid a collision on her port quarter and fouled the *Ganger Rolf's* starboard gangway. The accident occurred on the first quarter ebb, which was only a knot and a quarter in strength; the weather was fine and clear, and the sea smooth with a light breeze from S. E. The pilot did not think that there was any danger in passing the *Ganger Rolf* before getting out of the channel, as there was plenty of room, and the time required to run out of that channel was not more than 10 minutes. The pilot of the *Ganger Rolf* alleged that at the time of the causalty and previous to it the helm was neither starboarded nor ported, but he kept a straight course when the *Euripides* was passing the *Ganger Rolf* on the starboard side; the channel being narrow the *Ganger Rolf* still continued on her course. Had he ported the helm, the *Ganger Rolf* would have fouled the *Euripides*, but had he starboarded, the former would have gone ashore on the Long Stones reefs off Amherst point. The pilot stated that the two vessels were steaming abreast each other, with the *Euripides* slightly ahead, and when the *Euripides* ported the helm her stern slightly fouled the *Ganger Rolf's* gangway; the *Euripides* then slackened her speed, when the latter vessel continued her course, leaving the *Euripides* astern. The tides set slightly at quarter ebb on to the Long Stones reefs. The pilot of the *Ganger Rolf* stated that his vessel was about half a cable from the Godwin Spit buoy at the time of the accident, and the reason he gave why the *Ganger Rolf* did not go near the Reef buoy when he saw the *Euripides* coming up, was that he was afraid his vessel would strike on the Long Stones reefs. The pilot of the *Ganger Rolf* was asked what he would gain by getting his steamer round the Reef buoy first; he answered that he would get the first vessel on turn. The Prosecutor then read Articles 20 to 23 of a Notification, dated 4th November 1880, which he handed into Court. He also handed into Court two extracts from the defaulters' book regarding the accused pilots. On conclusion of the evidence of the two defendants, the Court directed the parties to withdraw in order that they might consider their finding and order. The Court, after having duly considered all that had been brought before them, were of opinion that the pilot of the *Euripides* was altogether to blame for the collision, in that by his own admission being the hindermost vessel, he attempted to

pass the *Ganger Rolf first* on the port side, which was a breach of the Rule of the Road (*sic* in orig.); *secondly*, on the starboard side in a narrow channel. The Court recorded that the pilot member of the Court was of opinion that both parties were to blame, because there was plenty of room in the channel for two vessels to have passed abreast each other in safety. The President was of opinion that the pilot of the *Euripides* had been guilty of misconduct, and the other two members were also of the same opinion; the pilot member alone being of opinion that both the defendants were guilty of misconduct. The Court observed that two members were of opinion that the pilot of the *Euripides* should be severely reprimanded and cautioned; the pilot member, that both defendants should be severely reprimanded; and the President was of opinion that the pilot of the *Euripides* should be suspended from piloting vessels for a space of 14 days.]

The Officiating Commissioner, Tenasserim Division, after perusing the Court's proceedings, observed that it was recorded the pilot of the *Ganger Rolf* admitted that by rounding the Reef buoy first he would get the first vessel on turn. The Officiating Commissioner supposed that the pilot of the *Euripides* would have gained the same advantage had his steamer been first. He therefore directed an explanation of the rule on the subject.

The Port Officer replied that the pilot of the *Ganger Rolf* by passing the Patch buoy first would not get the first vessel on turn, but would be a turn ahead of the pilot of the *Euripides;* whilst the pilot of the latter steamer would have gained the same advantage had his vessel got to sea first. The rule on the subject was not a Government one, but made by the pilots themselves, who since September 1883 had been working together in a club, and had their own rules for the working of the same. For the above reasons the rules mentioned in Rule XXXII of the new Pilot rules recently submitted were not attached thereto.

The Officiating Commissioner remarked that the Court of Inquiry held to investigate the circumstances of the collision had found the pilot who was in charge of the *Euripides* guilty of misconduct. The pilot member of the Court was of opinion that the pilot who had charge of the other steamer, *Ganger Rolf*, was also guilty of misconduct, and he was of opinion that that pilot should be severely reprimanded. The President of the Court considered that the pilot of the *Euripides* should be suspended from piloting vessels for fourteen days; the other members of the Court were of opinion that the pilot of the *Euripides* should be severely reprimanded, and (two of them added) "and cautioned." The pilot of the *Ganger Rolf* was accused both by the pilot and the master of the *Euripides* of porting his helm at a time when, under the Regulations for preventing Collisions at sea, it was his duty to keep his course. The Court having found that the pilot of the *Euripides* was altogether to blame for the collision, and the majority having refrained from recommending any punishment in the case of the pilot of the *Ganger Rolf*, the inference was that the charge of porting his helm made against the pilot of the *Ganger Rolf* had not, in the opinion of the Court, been proved. There was no apparent reason why the pilot of the *Ganger Rolf* should have ported his helm, and afterwards have starboarded it, as alleged. The Officiating Commissioner, therefore, accepted the conclusion of the Court on that point. That being so, the pilot of the *Ganger Rolf* was perfectly right in holding his course, and was not liable to any penalty. The offence of the pilot of the *Euripides* consisted, in the words of the Court, in having acted thus: That by his own admission, being the hindermost vessel, he attempted to pass the *Ganger Rolf first* on the port side, which was a breach of the rule of the road; *secondly*, on the starboard side in a narrow channel. In the course of the inquiry the pilot of the *Ganger Rolf* admitted that by getting round the Reef buoy first he would have gained the advantage of obtaining the first vessel on turn. The Port Officer was asked to state the rule

on that point, and he reported that by a rule framed amongst the pilots themselves, the pilot passing the Patch buoy first would gain the advantage of being a turn ahead of later pilots. The Officiating Commissioner observed that it thus seemed that the object of the pilot of the *Euripides*, in trying to push the vessel under his charge past another first by breaking a fixed regulation, and the by running alongside in a narrow channel, was to gain a personal advantage. The results fortunately were not very serious, but a great risk was run, and the consequences to one vessel or both might have been disastrous. To place those two vessels in such danger without any excuse whatever was a very grave misdemeanour. If the defaulter sheet of the pilot of the *Euripides* had not been comparatively clean, the Officiating Commissioner should have felt called upon to pass a most severe sentence. Having regard to all the circumstances, the Officiating Commissioner directed the suspension of the pilot of the *Euripides'* license for a space of three months.

The pilot of the steamer *Euripides* feeling himself aggrieved with the finding of the Court, and being also dissatisfied with the orders of the Officiating Commissioner, Tenasserim Division, on the above finding, under section 43 of the Maulmain Pilot rules, appealed to the Chief Commissioner of British Burma against the said finding and orders for the following reason: (1) for that the Court erred in having rejected the pilot of the *Euripides'* statement at the inquiry and that of the master and officers of the steamer, contained in their two letters, as to the cause of the collision, and accepted that of the pilot of the *Ganger Rolf;* (2) for that, besides the statements of himself and the master and officers of the *Euripides*, it was manifest from the nature of the accident itself that it was primarily caused by the *Ganger Rolf* having ported her helm, upon which the pilot was compelled to port the helm of the *Euripides* to get out of her way, and by the *Ganger Rolf* having suddenly starboarded her helm, otherwise the two vessels could not have fouled as they did; (3) for that the Court erred in finding, that because the *Euripides* was the hindermost vessel, therefore the pilot was wrong in attempting to pass the *Ganger Rolf*, and the Court erroneously recorded the pilot's statement in one part of the proceedings to mean that the collision took place in a narrow channel, as the proceedings elsewhere showed that the pilot of the *Euripides* declared the channel to have been 500 yards broad; (4) for that as the pilot of the *Euripides'* estimate of the breadth of the channel was not denied, and as the pilot of the *Ganger Rolf* admitted that at the time of the accident he was half a cable's length (101 yards) from the Godwin Spit buoy, that the *Ganger Rolf* had about 325 yards to spare; (5) for that the *Ganger Rolf* having 325 yards to spare, would not have gone on the Long Stones reefs off Amherst point, as stated by her pilot, had the helm been put to starboard; (6) for that, under the foregoing circumstances, and inasmuch as had the *Ganger Rolf* not ported and starboarded her helm, the collision would not have occurred, and the Rule of the Road, as laid down in Article 20, quoted at the inquiry, would not have applied to the case; (7) for that the Officiating Commissioner erred in holding that the pilot of the *Euripides* was to blame in having attempted to get to sea first so as to obtain a personal advantage by getting on turn before the pilot of the *Ganger Rolf*; that the *Euripides* was the fastest steamer, as shown from the fact of her having started from the anchorage some time after the *Ganger Rolf* and overtaking her, and that had it not been for the conduct of the pilot of the *Ganger Rolf* in having attempted to secure that advantage for himself, the casualty would not have happened; (8) for that the Officiating Commissioner had erred in awarding punishment for what had been admitted throughout the Court's proceedings to have been a *slight* collision causing *no material* damage, upon the principle that the result might have been disastrous, and there was nothing to have shown that under the circumstances the probable consequences of

the accident, such as it was, were likely to be more disastrous than the actual consequences; (9) for that, having regard to all the circumstances of the case and the nature of the damage done, the pilot of the *Euripides* submitted that the punishment was extremely excessive, inasmuch as it took away from him the entire and only means of support for himself and his family for the period of suspension; and (10) for that the amount of punishment awarded by the Officiating Commissioner was not only excessive but against the express recommendation of the entire Court—*two* of them being *nautical* men. For the foregoing reasons the pilot of the *Euripides* prayed that the Chief Commissioner, British Burma, would be pleased to take the facts of the matter into consideration to quash the Court's finding on the merits, and to annul or modify the order and sentence of the Officiating Commissioner, Tenasserim Division, or to pass such other orders for relief to him as might be just and proper.

After a careful review of the proceedings of the Court of Inquiry, the orders of the Officiating Commissioner, Tenasserim Division, directing the suspension of the pilot's license for a space of three months, and a memorial from the pilot of the steam-ship *Euripides* (a licensed pilot of the port of Maulmain) appealing against the finding of the Court and the orders of the Officiating Commissioner thereon, the Chief Commissioner, British Burma, remarked that he accepted the finding of the majority, three to one, of the members of the Court, and the view taken by the Officiating Commissioner, that in the matter of the collision between the steamers *Ganger Rolf* and *Euripides*, the pilot of the latter vessel, and not the pilot of the *Ganger Rolf*, was seriously to blame. But as the majority of the Court were against a severe punishment, the Chief Commissioner, British Burma, directed that the term of suspension of the pilot of the *Euripides* should be reduced from three months to two months.

107. The Norwegian iron screw steamer GANGER ROLF [of Stavanger 1,194 tons register, official number not reported], from Maulmain to Malta, with a cargo of rice. The steamer *Ganger Rolf* proceeded down the Maulmain or Salween river (Burma coast) on the 19th April in charge of a pilot, and was anchored at Halfway creek anchorage for the night. The pilot stated that he broke ground at 45 minutes past 4 o'clock on the morning of the next day (the 20th), and got under weigh and proceeded down the river; the *Euripides*, which steamer was also lying at Halfway creek, started some little time after from the same anchorage. All went well till the *Ganger Rolf* was between the Reef and the Godwin Spit buoys, when the *Euripides* overtook the *Ganger Rolf* and was passing that vessel on the starboard side. The pilot of the *Ganger Rolf* considering that his vessel was in a narrow channel, and the ebb-tide was already down, considered it prudent to keep the same speed on, and not to shift the helm either to port or to starboard, as, if he had done either, he would certainly have fouled the *Euripides* or put his steamer ashore on the Long Stones reefs, and therefore kept his course; at that time the weather was fine and clear, the wind was light from the S.E., and a smooth southerly sea; it was the first quarter ebb when the pilot of the *Euripides* ported his helm, thus bringing the *Ganger Rolf's* starboard gangway to the *Euripides'* port quarter, when at 7-10 A.M. the two vessels slightly fouled each other at the entrance to the Salween river. The pilot of the *Ganger Rolf* stated that the pilot of the *Euripides* was solely to blame in the matter, as he had ample opportunity of passing the *Ganger Rolf* before that vessel got into the narrow and dangerous channel, of which he was well aware, and where greater precaution was necessary when proceeding down, especially on an ebb-tide. Had the *Euripides* passed the *Ganger Rolf* in a broader channel, the pilot of the latter steamer stated that he would have allowed him every

means to do so. If the pilot of the *Euripides* could not have passed the *Ganger Rolf* before she got between the Reef and the Godwin Spit buoys, it was his duty to have eased down when he saw where the *Ganger Rolf* was, and not have proceeded in the manner he did. The *Ganger Rolf* had two iron rails broken and a boat's davit bent. No loss of cargo. No loss of life. (The casualty was attributable to the pilot of the steamer *Euripides* in endeavouring to overtake the *Ganger Rolf* in a very narrow and dangerous channel whilst the latter vessel was proceeding out to sea.)

108. The British iron screw steamer ROXBURGH [of Liverpool, 1,407 tons register, official number 84197], from Cardiff to Bombay, with a cargo of coals. On the 20th April, when in the Arabian Sea, exact position not given, the steamer met with an accident to her machinery in consequence of the shaft having broken; cause not reported. It was replaced with a spare one which was on board. She sailed from Bombay on her outward voyage on the 21st May. Value of damage to the steamer, machinery, and cargo not reported. No loss of life. (No further information could be obtained.)

109. The British iron barque SNOWDROP [of Belfast, 609 tons register, official number 90108], from San Nicolas (Central America) to Rangoon, with 300 tons rubbish ballast. On the 21st April the barque in charge of a pilot started inwards from the Outer Pilots' station at 1 P.M., and proceeded up the Rangoon river under all plain sail with moderate breeze from southward. At 6 P.M., on arriving in Da Silva bight, the wind became baffling, and eventually settled to about West or W. S. W. From abreast the Chokey village the pilot worked the vessel up the river by short tacks, and half an hour afterwards, when a little below the Hastings' buoy, the barque standing in towards the Syriam shore on the port tack under all plain sail, he put the vessel in stays and brought her round, but the wind backing to W. S. W. whilst the head yards were being filled, the barque gathered sternway, and before she was brought up by the anchor which was immediately let go, the *Snowdrop* touched the bank with her heel on the Syriam beach, Rangoon river (Burma coast), and remained fast, heading N. W. by W., with 30 fathoms cable on port bower anchor. The state of the tide at the time of the casualty was half flood; the weather was fine and the wind, which was from the westward, was baffling. At high-water the pilot ran out a kedge anchor, and after making several attempts, hauled the vessel off, and at 10 P.M. anchored her in the channel for the night. She was aground for three hours. The rudder was broken and the steering gear damaged; estimated value, ₹2,500. No cargo on board. No loss of life. (The accident was owing to the wind backing whilst the vessel was in stays.)

110. The British iron ship KHERSONESE [of London, 1,711 tons register, official number 8198], from Madras to Vizagapatam in ballast. At night on the 23rd April, there being a light breeze from the S. W. with the weather slightly hazy, the ship was proceeding on her voyage, when at 8-30 P.M. she ran ashore about 2 miles West of False Point Divi (Coromandel coast). The master ordered the crew to clew up all sail as soon as the vessel was found to be on the ground, but owing to the momentum of headway the ship had the attempt proved of no service to her. The whole of the crew were at once mustered and the boats got out, and a kedge anchor and warp were thrown out and endeavours made to kedge her off with the aid of the boats, but ineffectually. Efforts to get her off were continued till midnight, when there being a light wind and smooth sea at the time, the crew had no difficulty in warping her off again. After she floated, the kedge anchor and chain were slipped. She was aground for 3½ hours. A survey was held on the vessel at the request of the master and Charterer's Agents previous to loading, and from that survey she was found to have received no damage; it was therefore considered unnecessary to detain her. The ship after loading a cargo sailed accordingly for the United Kingdom. No damage to the

ship reported. No cargo on board. Value of the kedge anchor and chain, ₹300. No loss of life. (No Court of Inquiry was held concerning this accident; the first officer, who was in sole charge of the ship *Khersonese* at the time of grounding, failed to exercise the judgment which might have been expected of him in his position as to the proximity to land. Not only were the soundings entirely neglected, but the force and peculiarities of the currents were equally disregarded. The ship was sailing many hours in very shallow water, and a cast of the lead at any time would have warned the first officer of being out of his course. The course the vessel steered was not given by the master, and the False Point Divi light, which was generally visible within a radius of 14 miles, was not sighted at all.)

111. The British iron ship FORREST HALL [of Liverpool, 1,999 tons register, official number 87889], from Chittagong to New York, with a cargo of jute in bales. It appeared that on the 25th April, at 7-30 A.M., the pilot boarded the ship for the purpose of taking her to sea, and shortly afterwards the two steam launches, *Python* and *Alexandros*, being alongside and everything ready, the pilot cast the vessel off from the mooring buoy and proceeded down the Kornafuli river. At that time the wind was light from the eastward, the weather cloudy, and the flood-tide being very strong, the steam launches could not tow the vessel very well, and consequently the pilot was only able to get the ship down to Juldia by 11-30 A.M., when the tide having fallen and the wind having also shifted to the southward, blowing strong all the day, she was anchored. The pilot, accompanied by the master, then proceeded up to town, and having related the circumstances of the case to the authorities, begged for an order to take the vessel out by night. On permission being granted, the pilot returned to the vessel, and towards evening the southerly winds having nearly died away, he took the lamps down to light the bar buoys. At 10 P.M. she hove up her anchor and proceeded down the river in tow of the steam launches, lashed one on each side. At 1 A.M. on the 26th, whilst getting near the upper bar buoy, the wind shifted to the N. W., blowing a strong squall; thereupon the pilot set the vessel's fore and aft sails in order to help her, but when going close alongside the middle red bar buoy, a heavy Nor'wester struck the ship, immediately the crew hauled down all the fore and aft sails, but finding she was being drifted to the eastward towards shoal water, the pilot dropped the anchor; on the squall having passed over, he quickly hove up and ordered the launches to steam ahead full speed, but the water falling fast, this movement was of no use to her, and the *Forrest Hall* consequently grounded on the Outer bar spit nearly 50 yards from the Outer bar buoys, entrance to the Kornafuli river (Chittagong coast). The pilot stated that the ship was right fair in the channel, and that, had the ebb-tide only permitted of the vessel getting another 100 yards farther, she would have safely proceeded out. The casualty was accidental, inasmuch as the pilot was compelled to anchor during the squall, and when it subsided he attempted to proceed, knowing that the vessel could not be taken back to the anchorage at Juldia with the aid of two inefficient tugs, hence the casualty occurred; and the pilot stated that had the vessel stayed where she first anchored, she assuredly would also have grounded. The pilot further stated that he considered it a hardship to be permitted to handle long and heavy-draught vessels with insufficient towing power. The *Forrest Hall* floated off the next flood-tide with the assistance of the steam launches and at once sailed for New York. She was aground for 9 hours. No damage to the *Forrest Hall*. No loss of cargo. No loss of life.

(The Port Officer, Chittagong, recorded that he had at the request of the master granted permission to the pilot to take the ship *Forrest Hall* to sea at night, as during the day the southerly wind was blowing too hard to admit of the vessel being towed against the flood-tide without the services of a powerful tug.

The *Forrest Hall* having received no damage, sailed for her destination the next day. The master granted the pilot a good certificate, in which he stated that he did not consider him to blame in the matter. The accident was unavoidable and owing to the vessel being struck by a Nor'wester when she was in a narrow channel with little room, and the launches *Python* and *Alexandros*, both combined, not having sufficient power to hold the ship, consequently the pilot was compelled to drop the anchor when, by the time the Nor'wester had cleared off and the anchor hove up, the ebb-tide made, and the vessel grounded in crossing over the bar. Nothing could have been done to avoid the casualty, as the *Forrest Hall* was 276′ long, and being one of a large class of sailing vessels, was of too deep a draught (21′ 9″) to be anchored anywhere below Juldia. The Port Officer was of opinion that the grounding of the vessel was owing to the port not having sufficiently powerful tugs. An European pilot would undoubtedly have refused to take charge of large and heavy-draught sailing vessels, being aware of the risk he incurred in employing insufficient towing power on the Kornafuli river.)

112. The British iron ship PALGRAVE [of Glasgow, 3,112 tons register, official number 89843], from Calcutta to London, with a general cargo. On the 27th April the ship, in charge of a pilot and in tow of the steam-tug *Clive*, was proceeding down the Hooghly river; at 2-15 P.M. the pilot anchored her safely in Kalpi roads with 60 fathoms of chain in the water. At 8-15 P.M. a strong N. W. squall sprung up, the ship having some little time before swung to the flood-tide, and with the sheer force of the wind she parted the chain, carrying with it the anchor; Kalpi pagoda bearing S. E., Kalpi anchoring buoy S. S. W., and Jiggerkháli pagoda W. ½ S. She was subsequently brought up and safely anchored for the night. The Agents reported that they had no occasion to purchase an anchor and chain in lieu of that lost, by reason of the *Palgrave* having had spare ones on board; but the anchor and chain had not been recovered. The value of the lost articles was ₹2,766. No damage to the ship or cargo. No loss of life. (The occurrence was unavoidable.)

113. The British Indian muchwa MAIDESH [of Pánvel, 22 tons register, official number 2953], from Belapur to Thána, with a cargo of salt. On the 28th April, at 6-30 P.M., owing to the negligence of the tindal in not sounding and thereby ascertaining the depth of water, the muchwa ran on to a rock about a mile to the South of the Chendi bandar, Thána creek, Bombay harbour. She was afterwards recovered with slight damage. Cargo all lost, value ₹1,600. No loss of life.

114. The British iron screw steamer KHANDALLA [of Glasgow, 1,318 tons register, official number 71696], from Calcutta to Rangoon, Maulmain, and the Straits, with 100 passengers and a general cargo. On the 29th April the steamer was lying at No. 2 Calcutta moorings in the Hooghly river. On the morning of the next day the vessel, under charge of an assistant harbour master, was being transported to Garden reach, preparatory to proceeding to sea, in charge of a pilot. The assistant harbour master stated that at about 8 A.M., whilst dropping down, he had occasion to turn the *Khandalla* ahead on the starboard helm in order to clear the upper Bishpos' college sand buoy, but the vessel having a good sheer to the eastward, an order was given to go easy ahead on the engines, whereupon the assistant harbour master finding that the steamer was not straightening up, he directed the engines to be put half speed and then full speed ahead, when he suddenly observed that the third officer, who was on duty at the telegraph, ordered the engines to be put astern instead of ahead, and immediately stopped and went full speed ahead; the vessel, however, was too close to the buoy for that movement to be of any service to her, and the *Khandalla* came into collision with the upper Bishops' College sand buoy. The steamer after passing over the buoy, her heel took the sands and swung

head down the river, but fortunately was able to back off without any damage almost immediately. The buoy was dented in, but its damage was not reported. No loss of cargo. No loss of life. (The accident was caused by the negligence of the third officer of the *Khandalla* in having passed wrong orders to the engine-room.)

MAY.

115. The British Indian padow RAMPRASAD [of Anjanvel, 22 tons register, official number 6206, age 59 years], from Govál-koti to Bombay, with a cargo of bales of cotton. On the 2nd May the padow was proceeding down the Váshishti river (Bombay coast), and at 4 A.M., when near Songami, she was suddenly struck by a strong westerly wind and heeled over on her port side; she took in water rapidly, when some 40 bales dropped into the river, and having sprung a leak she foundered. The padow was subsequently recovered and repaired at a cost of ₹150. Of the cargo ₹1,380 worth was damaged. The crew safely swam ashore.

116. The British iron ship PHILOMENE [of Liverpool, 1,423 tons register, official number 70956], from Calcutta to New York, with a general cargo. On the 1st May the ship, in charge of a pilot and in tow of the steam-tug *Retriever*, was proceeding down the Hooghly river, and at 4-45 P.M. she anchored in 36′ of water at Mud point for the night. The next day, at 4-45 A.M., whilst the ship was lying at the anchorage below Mud point, the tide being half-ebb, the chain suddenly parted in the hawsepipe at about 43 fathoms; the Lower Eastern Jellingham buoy bearing E. ½ N., Centre Western Jellingham buoy W. N. W., and the Lower Mud point buoy S. ½ E. No damage to the ship or cargo. The anchor and chain lost by the *Philomene* were not replaced at Calcutta, neither had they been recovered. The value of the lost articles was about ₹1,243. No loss of life. (The cause of this casualty was unknown.)

117. The French iron screw steamer BURGUNDIA [of Marseilles, 1,848 tons register, official number not reported], from Rangoon to Genoa, with a cargo of rice. On the 2nd May, when in the Bay of Bengal (exact position not given), the steamer met with serious damage to her machinery and was compelled to put into Colombo for survey and repairs. Value of damage to the steamer, machinery, and cargo not reported. No loss of life. (No official report of the accident had reached this Department, and neither could any information be obtained from the Marine authorities at Colombo.)

118. The British iron screw steamer KHANDALLA [of Glasgow, 1,318 tons register, official number 71696], from Calcutta to the Straits *viâ* Rangoon and Maulmain, with 370 passengers and a general cargo. On the morning of the 3rd May the steamer, under charge of a pilot, proceeded up the Rangoon river from the Outer Pilots' station, and owing to the water falling fast she was anchored at 1 P.M., with the Hastings' buoy on with the semaphore at King's point. At 2-15 P.M. the vessel safely swung to the flood-tide, and half an hour afterwards the pilot hove up the anchor and tried to turn her round on the port helm, but in reversing the engines the *Khandalla* came back against her helm. The pilot thereupon tried to turn her round on the starboard helm, but the wind came in suddenly very fresh from the southward and caught the vessel's awnings, which in a measure stopped her from going round; when the pilot saw that the steamer was approaching the river bank he at once reversed the engines and let go the anchor, but the vessel, was too close to the bank for that movement to be of any service to her, and in a couple of seconds afterwards the *Khandalla's* stem touched the bank at 3 P.M. below the Hastings' shoal in the Rangoon river (Burma coast). The steamer with the anchor down and the engines going astern full speed came away immediately; the engines were then stopped, and after the vessel floated off the bank, the pilot hove up the anchor

and turned her round on the port helm without any difficulty and proceeded up the harbour of Rangoon, where she was safely moored. No damage to the steamer or cargo. No loss of life. (The pilot attributed the accident to the wind having come on suddenly very fresh from the southward, and having caught the vessel's awnings, in a measure stopped her from turning round. Before the casualty happened the weather was fine and clear and the wind calm. The occurrence was more probably due to a want of experience and caution on the part of the pilot, who ran the steamer *Khandalla* on the river bank whilst trying to turn her round on a flood-tide.)

119. The British iron flat JHANSI [of Calcutta, 488 tons register, no official number], from Assam to Calcutta, with a cargo of tea. The master of the steamer *Silchar* stated that on the 4th May the steamer was towing the flats *Jhansi* and *Mahanadi* up the Hooghly river. At 12-15 P.M. the *Silchar* with the flat *Jhansi* was rounding-to at Kúkraháti astern of the flat *Mahanadi* to take her in tow, and when half round the steamer was caught by a heavy squall from the S. E., causing the *Silchar* to drift down, so that the master did not clear the Anchor Hoy *Vulcan*, the consequence being that the *Vulcan's* jibboom came into collision with the *Jhansi* and carried a portion of the roof away. Immediately after the casualty the master cut the flat's hawsers, and on so doing the *Jhansi* swung clear without doing much damage to herself. The master of the steamer stated that the men on board the Anchor Hoy boat refused to light-to any chain, for had they done so no accident would have occurred. The *Vulcan* only lost her jibboom. Value of damage to the *Jhansi*, ₹200. No loss of cargo. No loss of life.

120. The British iron schooner VULCAN [of Calcutta, 124 tons register, no official number, belonging to the Port Commissioners], generally employed in recovering vessels' lost anchors and chains. On the 4th May the Anchor Hoy was lying anchored off Kúkraháti sweeping for lost articles belonging to vessels. The serang stated that at 6 A.M. on that day he took the jolly-boats in search of them, but as he could not find any, and as the wind began to blow hard from the S. E., and there was much sea on, he returned to the *Vulcan* at about 11-30 A.M. The crew whilst breakfasting saw the flat *Jhansi*, being towed by the steamer *Silchar*, proceeding ahead of the Anchor Hoy boat. Whereupon they instantly left their food in order to pay out chain, but before they could cast off the stoppers, the *Jhansi* came into collision with the *Vulcan*, carrying away the latter's jibboom, and also broke an iron plate. The serang had it repaired on board after the accident, after which he began working with the same, and proceeded down to Kanta kháli. Value of damage to the *Vulcan* not reported. No loss of life.

121. The British iron ship SIR HENRY LAWRENCE [of Liverpool, 1,221 tons register, official number 51496], from the Mauritius to Point de Galle in ballast. The ship proceeded to Point de Galle (South coast of Ceylon) for orders after having discharged her cargo at the Mauritius. On the 5th May, whilst anchored in the port, the hawsepipe broke when getting under weigh in charge of a pilot, and consequently the vessel had to slip a bower anchor with 15 fathoms of cable. The anchor and chain lost by the *Sir Henry Lawrence* were replaced by new ones at Point de Galle, but the cost of which was not reported; the value of the lost articles was about ₹606. No loss of life. (The cause of this casualty was not stated. No report of the accident had reached this Department from the Marine authorities at Point de Galle.)

122. The British iron screw steamer EDEN HALL [of Liverpool, 2,325 tons register, official number 87841], from Liverpool to Bombay, with a general cargo. On the 5th May, when in the Arabian Sea (exact position not given), the steamer met with an accident owing to the low-pressure engine connecting rod breaking; cause not reported. She arrived at Bombay on the 9th, and on the

12th, was surveyed by the Shipwright Surveyor to the port assisted by the Engineer Surveyor. They reported that in accordance with the Steam-ship Survey Acts, II of 1864 and IV of 1873, they proceeded on board the above vessel to ascertain the extent and nature of the damage, and what repairs, &c., would be required to make good the defects. After a careful examination of the engines they found that the connecting rod of the forward engine was broken at the fork end, and advised that the same be repaired by fitting wrought-iron plates $1\frac{3}{4}$" thick on each side of the fork end and bolted together by suitable bolts and nuts, and a new rod to be fitted as soon as procurable; the boilers were examined externally and internally, and were found to be in good condition, but the Surveyors recommended that the load on the safety valves be reduced to 70 lbs. on the square inch till a new connecting rod was fitted to the engines. The steamer, after having been repaired, sailed from Bombay on the 25th May. Value of damage to the machinery, about ₹2,194. No damage to the *Eden Hall*. No loss of cargo. No loss of life.

123. The British iron screw steamer KILWA [of Glasgow, 993 tons register, official number 78638], from The Straits, Maulmain and Rangoon to Calcutta, with 722 passengers and a general cargo. On the 12th May the steamer, under charge of a pilot, proceeded up the Hooghly river, and when at Garden reach the pilot was relieved by the assistant harbour master. At 2 P. M., the *Kilwa* was backing up, and after sighting the Inland steamer *Siva* with a flat in tow proceeding down, the assistant harbour master blew the whistle and kept well to the westward, in order to clear the ship *Eastern Monarch*, which vessel had been brought up and was lying at anchor in the middle of the stream off No. 8 Esplanade moorings. The assistant harbour master on observing that the steamer *Siva* and the flat had got the buoy in between them, at once ordered the *Kilwa* to go full speed ahead, and kept the helm hard-a-port, but notwithstanding she was fouled by the *Siva*. The *Kilwa* had two plates broken and one dented above water, and the rudder slightly injured. The assistant harbour master reported that there was plenty of room for the steamer *Siva* to have gone on the other side of the ship *Eastern Monarch* when she saw that the *Kilwa* was dropping up; or had the *Siva* backed full speed astern when she got foul of the buoy, no collision would have occurred. The *Kilwa* was subsequently surveyed and repaired. Value of damage to the steamer, about ₹800. No loss of cargo. No loss of life.

[A Departmental Committee of Inquiry was held at the Port Commissioners' Buildings, Calcutta, on the 20th May, by the Deputy Conservator, to inquire into the collision which occurred between the steam-ship *Kilwa*, inward bound, and the Inland steamer *Siva*, towing a flat, proceeding down the Hooghly river, thereby doing considerable damage to both vessels. After a full consideration of the evidence in this case the Committee recorded that on the 12th May, about the latter part of the flood-tide, the ship *Eastern Monarch* had dropped up, and was lying at anchor in mid-channel off No. 8 Esplanade moorings with 15 fathoms of chain out and a sheer to the eastward. The British India Steam Navigation Company's steamer *Kilwa*, in charge of an assistant harbour master, was backing up to her moorings off the Bank of Bengal, and the assistant harbour master elected to pass the *Eastern Monarch* to the westward as there were two steamers at anchor above waiting to go into moorings. Whilst passing to the westward of the *Eastern Monarch* the Inland Flotilla Company's steamer *Siva* with a flat in tow, which had just proceeded through the Hooghly bridge downwards, met the *Kilwa* in the narrow space between the *Eastern Monarch* and the swinging moorings, when a collision occurred. The Committee were of opinion that the assistant harbour master on the face of his order was perfectly justified in adopting the course he did in passing to the westward of the ship *Eastern Monarch*; and farther, that he was not backing up the *Kilwa* at an excessive speed.

The Committee attributed the collision to the action adopted by the master of the Inland steamer *Siva,* who should never have attempted to pass the *Kilwa* whilst she was in the passage to the westward of the *Eastern Monarch;* as the *Siva* was proceeding against the tide, it was clearly her master's duty to give way to the vessel backing up either by going to the westward of the swinging moorings as soon as he sighted the *Kilwa* making for the passage to the westward of the *Eastern Monarch,* or by passing to the eastward, or lying-to at a sufficient distance above the *Eastern Monarch* and as close to the western side of the channel as possible until the *Kilwa* had passed the stern of the *Eastern Monarch,* which vessel was then lying at anchor. The Committee observed that there was not the slightest doubt that the *Siva* was steaming down at a much greater speed than 4 knots from the following facts:—that although her engines were stopped when abreast the No. 11 swinging mooring buoy, and that she subsequently came into collision with the *Kilwa,* the tendency of which must have stopped her way considerably, yet without moving her engines again she forged ahead at such a rate that No. 10 swinging buoy passed between the steamer and the flat, which was on her starboard side, under starboard wheel, doing considerable damage to the sponson stays and wheel and cleared aft—the steamer and flat still forging ahead against wind and tide. It was proved in evidence that the stern way of the *Kilwa* was all but stopped when the accident happened, so that the impetus of the blow was caused by the way the *Siva* had on through the water at the time. Had the master of the *Siva* proceeded straight on instead of porting his helm and stopping his engines when it was too late, the Committee were of opinion that the vessels would have cleared each other without touching, if anything; had the helm been slightly starboarded it would have been better, as that would have thrown the *Siva's* stern away from instead of on to the *Kilwa.* The Committee, therefore, concluded that the master of the *Siva* was to blame for the casualty for the following reasons:—*first,* in having attempted to pass the steamer *Kilwa* in the narrow space between the *Eastern Monarch* and the swinging moorings; *secondly,* in having proceeded down the river at, under the circumstances, an excessive rate of speed; and *thirdly,* when too late he ported the helm to such an extent as to throw the *Siva's* stern across the *Kilwa's* track, when it should have been, if anything, starboarded.]

124. The British iron paddle steamer SIVA [of Calcutta, 734 tons register, no official number, belonging to the Inland Flotilla Company], from Calcutta to Dhibrughar, with a general cargo. On the 12th May, the steamer *Kilwa* was proceeding up the Hooghly river. At 2 P.M., the assistant harbour master, whilst dropping her up from Garden reach after relieving the pilot, sounded the whistle immediately on sighting the steamer *Siva* with a flat in tow proceeding down, having just passed through the Hooghly bridge, evidently with the object of passing the steamer *Kilwa* in the narrow space between the *Eastern Monarch* and the swinging moorings. The *Kilwa* was kept well to the westward, in order to clear the ship *Eastern Monarch,* which vessel had been brought up and was lying at anchor in the middle of the stream off No. 8 Esplanade moorings. The assistant harbour master on observing that the steamer *Siva* and the flat had got the buoy in between them, at once ordered the *Kilwa* to go full speed ahead and kept the helm hard-a-port, but the *Siva* continued to proceed against the wind and tide at a much greater speed than 4 knots an hour, and ran into the *Kilwa,* thereby doing considerable damage to both vessels. Had the master of the *Siva* given way to the *Kilwa* backing up, either by going to the westward of the swinging moorings as soon as he sighted the *Kilwa* making for the passage to the westward of the ship *Eastern Monarch,* or by passing to the eastward of the *Eastern Monarch,* or lying-to at a sufficient distance above the *Eastern Monarch,* and as close to the western side of the channel as possible until the *Kilwa* had passed the stern of the ship, which vessel was then

lying at anchor in mid-channel preparatory to proceeding into moorings, there would have been no collision. A Marine Surveyor proceeded on the evening of the 12th May on board the steamer *Siva* then lying off the Government Dockyard, Kidderpur, in order to ascertain what damage she had sustained through coming into collision with the *Kilwa*. He reported that after a careful examination of the vessel it was found that two plates on the steamer's port side aft were damaged, one plate with a piece torn out, 3″ wide by 2′ long, about one foot above the water's edge and two frames forward of No. 2 bulkhead; two frames forward of No. 2 bulkhead torn and broken and three frames aft of this bent and strained, also the frame connecting the bulkhead; this bulkhead had resisted the strain put on it and thus prevented the damage extending; one double and one single cast iron towing bollard broken in pieces on port side aft; the rudder boom on port side damaged and broken; side rails, stanchions, angle irons, wind ties, rafters and corrugated iron roofing from bridge to stern on port side more or less carried away and damaged; 8 sponson stays on port side completely carried away and lost in the river; two arms of the paddle, two stays and one outer segment damaged and broken; and the starboard paddle wheel bent and strained. From a careful study of the above specification of damage the Surveyor was of opinion that the repairs would cost the sum of ₹3,000 to place the steamer *Siva* in the same good condition as she was prior to the collision. Value of damage to the *Siva*, ₹4,000. The cargo was slightly damaged, but to what extent was not reported. No loss of life.

125. The British iron ship KNIGHT OF THE GARTER [of Liverpool, 1,434 tons register, official number 78724], left Liverpool on the 17th January with a full cargo of salt, bound for Calcutta, calling at False Point for orders, and nothing of importance occurred with the vessel up to the 11th May. At noon of that day her position by observation was latitude 19° 54′ N., longitude 86° 17′ E., and the course then steered by the standard compass being N.E. by E., the deviation about 10° easterly. The land was sighted on the port beam, the weather was clear, and there was a moderate breeze blowing at the time, and the speed of the vessel was reckoned to be 4 knots an hour. At 2 P.M. the ship experienced a severe thunderstorm, when the master reduced sails to lower topsails, and about three hours afterwards, it having cleared up, the master got sail on the vessel again. He stated that at 6 o'clock the same evening he sighted the False Point light, which bore S.W. by S., true, distant 20 miles. The weather was fine and clear, and the wind was light from the S.W.; the lead was hove and no bottom got at 15 fathoms. At 7-15 P.M. when the master obtained soundings in 12 fathoms, he took in all the light sails and stood off from the land. At 45 minutes past 9 o'clock that night the vessel was heading to the S.E. with light airs, and the main and topgallantsails and the outer jib were then set. The ship was on the starboard tack, and was hardly moving through the water; the False Point light was then bearing N. by W., true, distant from 10 to 12 miles. At midnight the crew took in the topgallantsails, cross-jack and mainsail, and wore the ship round to the N.W. for the purpose of working her head inshore, and put the mizentopsail to the mast. The reason for so doing was explained by the master thus:—that being bound to False Point for orders he did not want to get out of the range of the light, as he expected his orders to be telegraphed to him from the light-house. Had the vessel gone too far she might have been swept up the Bay of Bengal when it would take him, the master, days to beat back again. The lead was kept constantly going, and soundings were got at 9 and 9½ fathoms. On the 12th, at 1 A.M., the master retired, leaving the second officer on watch, and giving him orders to keep the lead going and to call him if she shoaled her water from 9 fathoms. There was one man on the forecastle head on the look-out, one man at the wheel, and another heaving the lead frequently, and the second officer was

on the poop walking up and down. At midnight the second officer relieved the first officer, and received the course N.W. from him. The second officer stated that an hour afterwards the master, before he went to bed, left orders to call him if the water shoaled. The hand lead was being hove every 3 or 5 minutes up to about 20 minutes to 4 A.M., and 9 fathoms and a quarter less 9 fathoms were regularly got. At 3-15 A.M. the second officer stated that on going forward to see whether a look-out was being properly kept and the side lights burning, the man on the look-out told him that he thought he saw land on the lee bow and ahead. He looked at it for a while, and the night being pretty dark the land was so indistinct, that he was uncertain whether it was land or haze. Whilst on his way aft he asked the leadsman what water there was, and on being told that it was 9 fathoms, he not feeling confident that the soundings given by the man in the chains were correct, went and hove the lead twice himself, and found that the vessel had shoaled to 7 fathoms. He then left the lead and went straight and called the master, who was lying in a swinging cot on the poop right alongside of where the second officer was, informing him that he imagined he saw land to leeward, and that the water had shoaled to 7 fathoms. Immediately the master jumped up, but before he could give any orders the vessel slightly struck the ground about $2\frac{1}{4}$ miles S.S.E. of the False Point light-house (Orissa coast), when breakers were reported, and on the boatswain sounding, $5\frac{1}{2}$ fathoms were found, when the water rapidly shoaled to $4\frac{1}{2}$, and then to $3\frac{1}{2}$ fathoms. The master afterwards on seeing that she was bumping on the sands, ordered the helm to be put hard up, and her head payed off to N.E. by N. when she grounded again. Sail was made to try and drive her off, but without any result, as the ship remained fast. He then sent the first officer on shore in order to obtain the help of a steamer or a lighter, or labourers, but in vain. At 10 A.M. a kedge anchor was run out to the S.W., but the line parted and the anchor lost. He then dropped the starboard bower anchor for the purpose of keeping her from driving farther in shore. The master said that whilst laying out the anchors the boat capsized in the surf and 4 men were thrown into the water, but were fortunately picked up in the life-boat by the first officer. A portion of the crew then began jettisoning the cargo, working day and night, in order to lighten the vessel, whilst in the meantime the master, assisted by the remaining men, made several attempts to get her off under sail, having a heavy N.W. squall to help him, but without success, as on the afternoon of the next day the chain parted. On the 16th the steamer *Retriever* went alongside, and the ship floated off with her assistance after having jettisoned about 250 tons of salt and losing two anchors and chains. The vessel whilst ashore made water in the forepeak, but none in the mainhold, and on her arrival at Calcutta, after discharging her cargo, she was put into dry dock for examination. The second officer positively stated that on going down to the braces to square the mainyard he saw breakers for the first time, and only just then the look-out came running aft crying out that the vessel was in the breakers. He said that after the master turned into his cot he on one occasion left the deck for a drink and a match, and that was for not more than 3 minutes. An able seaman stated that he went into the chains at 2 o'clock on the morning in question, and three times reported to the second officer that the vessel had shoaled to 7 fathoms, but got no answer. The third occasion whilst the second officer was going on to the poop out of the companion way through the entrance to the cabin, he was told that she was shoaling her water, whereupon he took the lead and hove it himself; he did this only once, and then jumped down to call the master. The man at the lead said that the stars were shining, but there was no moon. The man on the look-out forward asked the second officer at half past 3 o'clock that morning whether "this be land on the starboard bow," the second officer at first told him that it was not, but afterwards on looking again said, "yes, it is land."

At 3-40 A.M., just as the man at the look-out sung out "breakers ahead," the casualty occurred. The man at the wheel swore that after he went to the wheel at 2 o'clock on the morning of the 12th the second officer was away three times in two hours, having been 10 minutes on an average each time. About 20 minutes past 3 A.M. the man at the wheel sang out "breakers ahead," loud enough for the second officer to hear, a good quarter of an hour before the vessel took the ground, and that the second officer seemed not to heed him. The master accounted for the accident to the current, which he thought was easterly as stated in Heckford's sailing directory, and which, in fact, turned out to be westerly, and also to the second officer having disobeyed orders by not calling him when the ship shoaled her water. The master said that the second officer whilst on watch was absent from the poop, being away in the cabin to fetch a match to light his pipe with. On the morning of the 18th June Lloyds' Surveyor, accompanied by a Marine Surveyor, proceeded on board the ship *Knight of the Garter,* lying in the Hooghly dry dock, Howrah, in order to make a survey on the bottom of that vessel. After a careful examination of the bottom, they reported that on the starboard side forward the second plate from the stern (on the strake of plating above the garboard strake) was broken close to the forward side of the collision bulkhead, the break was in the middle of the plate and went right through, making a hole about 9″ × 4″; on the same side under the main hatchway the plates of the bottom, from the plate below the bilge to the plate above the garboard strake, seemed to be slightly set up, and the butts and rivets weeping; the rivets of the keel were also weeping in that part in a space of about 8'. The Surveyors were unable to examine the cement and floors inside on account of a portion of the salt cargo being left in the hold in midships for ballast when going into dock. They advised that the cargo be discharged and the loose ceiling lifted for examination of the cement and floors; the broken plate forward to be temporarily repaired by rivetting a patch over the broken part, but as the ship would have to remain in dock whilst the salt was being discharged for examination of the cement and floors in midships (and repairs might be required in that part), there would be ample time to change the broken plate without incurring extra dock hire on that account. The Surveyors, therefore, recommended that the broken plate be taken out and replaced by a sound plate, well rivetted as before; the paint was completely rubbed off, the bottom on both sides from the plate above the bilges down to the keel, that part of the bottom should be rubbed down with sandstone, and an extra coat of good paint laid on the bare iron; the paint should be scraped off in midships in the line of the 'tween deck beams for examination of the rivets, and the bottom, up to the load water line, cleaned and coated with two good coats of paint and a coat of tallow; the paint on the bends and top sides, more or less chafed by boats and hawsers, to be scaled where chafed, and a fresh coating of paint laid on; the rivets on the back frame of the rudder loose, to be replaced with sound rivets, and the rudder lifted for examination of the pintles and gudgeons; the main deck leaking badly in midships and in many places forward and aft, the Surveyors advised that the whole deck be thoroughly caulked and made water-tight. Whilst proceeding to the dry dock, Howrah, a link of the starboard chain cable broke, rendering a 15 fathoms length of chain useless, the same length of new tested bower chain, to be supplied in lieu of the broken length; the deadeye bolts of the fore and maintopmast, the topgallant and the royal backstays, and the bobstay bolt at the stem strained and bent, to be taken out and replaced with sound bolts; two boats—a life-boat and a dingy—slightly damaged, to be repaired and put in good order. The *Knight of the Garter* whilst entering the dry dock took the ground at her heel, and the undermentioned ropes and blocks, as well as the chain cable already noted, were damaged in getting her off, *viz*:—Two 12″ single luff tackle blocks and a large snatch block broken and destroyed, a small

steel warp, and a 5″ Manila line cut and broken, to be replaced with new blocks and lines. On perusal of the vessel's log-book the Surveyors found that the following articles were damaged, lost, and destroyed when the ship was aground at False Point, *viz.*:—The starboard bower anchor and 15 fathoms of chain lost, a 6 cwt. kedge anchor, and two 5″ hauling lines lost, and another 5″ hauling line broken; 60 fathoms of 3½″ Manila line, used for a bridle on the kedge anchor lost; a coil of 2½″ Manila line and a quantity of 3″ rope lost and destroyed whilst grappling for the kedge anchor; back rope and guy lanyard cut, chafed, and broken; four oars, four rollocks, the rudder and the yoke, and two life-buoys lost out of the ship's boat when she capsized in the surf; a new bower anchor, a kedge anchor, and 15 fathoms bower chain cable, to be put on board before leaving the port of Calcutta; and the lines lost and broken, to be replaced with new ropes; a cask containing 5 cwts. of composition paint, stowed in the forepeak, broken and destroyed when the fore compartment filled with water; 30 fathoms of 14″ water laid Manila hawser chafed badly in towing, to be replaced with new; the collision compartment having been full of water, caused a great quantity of rust to form on the plates; the Surveyors therefore recommended that the plates and frames be scaled and two coats of paint be put on; the cement, also removed for examining the rivets and riveting the new plates, and new cement be put down again. They visited the vessel on the 10th July for the purpose of surveying her finally, and ascertaining whether the repairs and works renewed had been executed and completed satisfactorily. They reported that all the slack rivets found in the floors and plates were taken out and replaced by sound rivets; the cement had been renewed in 12 spaces on both sides of the keelson, also the cement on both sides of the frames from the third lower hold pillar abaft the foremast to the first frame before the mainmast; 582 feet of new fixed ceiling had been fitted in place of that removed for examination of the floors and bilges, the old ceiling being unfit to be again used; the new plate on the starboard bow had been properly fitted and well rivetted on; the cement in the forepeak before the collision bulkhead had been removed and an extra thickness laid, the same being done abaft the collision bulkhead; the lower plates in the hold and collision compartment were all chipped and two coats of paint laid on; the outside of the vessel was painted with three coats of paint and one coat of white lead and tallow; the after part of the rudder had been rivetted up afresh, but it was not lifted for examination, as it appeared to the Surveyors to be in good order; everything as recommended had been done and finished in a proper manner; the 90 fathoms wire rope lost by the vessel whilst on shore not being procurable at Calcutta, it was advised that the same be bought when the vessel reached Home. The ship being out of dock and at her moorings was quite tight and in every way in a first rate condition. The Surveyors were of opinion that the ship *Knight of the Garter* was as good as she was before her accident, and pronounced her to be strong, staunch, and seaworthy, and fit to carry a dry and perishable cargo to any part of the world. Value of damage to the *Knight of the Garter,* ₹14,584; cargo, ₹5,000. No loss of life.

[A Special Court of Inquiry was held in the office of the Port Officer of Calcutta, on the 2nd and 11th June, by the Chief Presidency Magistrate, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances connected with the grounding of the above vessel. The Court recorded that in this case, for reasons indicated hereafter, they did not consider it necessary to proceed with the more formal investigation sanctioned by the above Act, and therefore, under the provisions of section 7 of the Act, they only made a preliminary investigation, taking the evidence of the master and of others whose evidence appeared to have been material. The Court having assembled pursuant to citation, the papers and correspondence

relating to the case were produced and read, and on conclusion of the evidence of all the witnesses, the Court adjourned the trial until the 11th June; the Court when having read their decision, forwarded the proceedings and report for the consideration of the Local Government. They recorded that it was stated in evidence that the ship when she left Liverpool bound to Calcutta, was tight, staunch, and in first rate order. Everything went on smoothly during the passage up to noon of the 11th May, when the position of the vessel by observation was found to be latitude 19° 54′ N., longitude 86° 17′ E.—Land in sight on the port beam and steering by the standard compass N.E. by E., having 10° of easterly deviation on that course; there was a moderate breeze blowing at the time, rate of sailing about 4 knots. At 6 o'clock that evening the False Point light was sighted, bearing N.E. by N., true, at a distance of 20 miles; a cast of the lead was taken and no soundings found with 15 fathoms of line out. At 7-15 P. M. the master sounded in 12 fathoms of water; hauled off from the land at 9-45 P. M., ship standing to the S. E. with light airs; the False Point light bearing N. by W., true, distant 12 miles. At midnight, sail was reduced and the vessel hove-to on the port tack with her head inshore; course by compass N. W., making little or no headway. At 1 o'clock the following morning (the 12th) soundings were taken and 9½ fathoms found; the master then having given orders to the second officer to keep the lead going and to report to him when the water shoaled, lay down in a swinging cot on deck. The hand lead was kept going all the time, and 9 fathoms and a quarter less 9 fathoms were got at 3-30 A.M. The second officer not feeling confident that the soundings given by the man at the lead were correct, went and got a cast himself, and found she had shoaled to 7 fathoms. He immediately went and called the master, who ordered the helm to be put hard up and the after yards to be squared; before his orders could be executed the master felt the ship strike the ground; at the same time the man on the look-out ran aft and reported breakers ahead. Before the casualty occurred the boatswain took a cast of the lead and found 5½ fathoms; everything was tried to float the vessel without success; False Point light was bearing N. by W. ¾ W., true, when the ship grounded. At 10 A. M. the kedge anchor was run out to the S. W., and the crew under orders commenced to jettison salt cargo to lighten the vessel. The first officer was despatched on shore for assistance, but his quest proved unsuccessful; the starboard bower anchor was let go to prevent the ship driving farther on to the beach, but the chain parted the next day, as did also the line on the stream anchor. On the 14th the steam-tug *Retriever* arrived and took the vessel in tow—the crew having been engaged up to that time in throwing bags of salt overboard. From the 14th to the 16th the steamer was pulling, trying to get the vessel off; the crew lightening her at the same time by throwing cargo overboard. At 9 A. M. of the 16th the vessel was dragged off the shore and towed up to Calcutta, where she arrived at 6 P.M. on the 17th, and the ship, as far as could be ascertained, had received no serious damage. The Court were of opinion that the master navigated his vessel with care and judgment from the time of leaving Liverpool until the evening of the 11th of May, when he approached the vicinity of False Point light-house, where he had to call for orders; he seemed to have used every precaution for ensuring the safety of his ship by heaving her to at midnight with her head to the N. W., so as to counteract the usual current running at that time of the year to the North and Eastward. Had the current been running in accordance with this expectation, the *Knight of the Garter* would probably have drifted into the exact position desired by the master for communicating with the light-house, in the morning. The master also took the proper and necessary precaution of keeping a man in the chains for sounding frequently; another man was also stationed forward on the look-out, and the Court were of opinion that had the

orders of the master to the second officer, at 1 A.M. when he lay down, been carried out, the vessel would in all probability have never stranded. The Court observed that the accuracy of the soundings given by a Negro seaman from 2 A.M. to 3-40 A.M. on the day in question were open to grave doubts, nor was that suspicion limited to the efforts of the West Indian seaman alone. Hardly 5 minutes had elapsed between the moment when the second officer took his hurried cast of the lead, which he alleged gave him 7 fathoms, and the time when the master was called and his orders for squaring the yards given. Taking into consideration the fact that the vessel was almost stationary at the time, the Court failed to see how it was possible for her to have shoaled her water within that limited interval sufficiently to have stranded on the beach. The Court, therefore, surmised that the second officer in his hurry taking a cast of the lead in the dark, must have mistaken the marks on the lead line, and 5 fathoms, instead of 7 fathoms, would probably have been the right sounding. By the evidence of the second officer and the questions he put to the Negro seaman, the Court observed that the second officer placed no confidence in his soundings; he, therefore, incurred great blame for having allowed a man whom he deemed incapable of performing that responsible duty to continue in the chains heaving the lead at a time when the vessel was standing in shore and shoaling her water. The Court recorded that the evidence of the Negro seaman as to his soundings could not be relied upon. It seemed to the Court that when he discovered—after the second officer had taken a cast and left him—that the vessel was in much less water than he had been calling out; that he, instead of correcting his mistake by saying so, was overtaken by fear and deserted his post in the chains—a fact which he somewhat lamely attempted to account for by saying that he was very excited. The Court observed that the correctness of that surmise was strengthened by the fact that when the boatswain seeing the chains were deserted took a cast of the lead, he found only $5\frac{1}{2}$ fathoms; nor could any reliance be placed upon the Negro seaman's statement that before the ship grounded he had a cast of 7 fathoms, then felt her bump over the sands, and then had another cast of 7 fathoms. It was at that time he said that he called the second officer three times, but got no answer. The inaccuracy which characterized the statement of that witness throughout, made the Court find it difficult to believe his assertion that he saw the second officer at that time come up from below from a visit to the cabin. It was much more probable that the second officer at that time was racing back to the man with the lead after his visit to the look-out forward, alarmed by the well-grounded suspicion that land was in sight. The Court were, however, of opinion that the second officer did leave the deck during his watch certainly on *one* occasion, leaving no one in charge, and thereby showed an entire disregard of his responsibility as an officer on watch, the vessel being at the time in close proximity to the shore. Had that officer been more attentive in keeping a good look-out he would, the Court considered, have perceived the breakers before the ship grounded on the sands. Indeed, the land seemed to have been pointed out to him by the look-out man when he went forward, and there was also the assertion of another witness that he, whilst at the wheel, sang out breakers ahead, loud enough for the second officer to hear, a good quarter of an hour before the accident happened, and that the second officer paid no attention to that warning. The evidence of that witness was, however, not altogether satisfactory. The Court observed that the assertion, for instance, that on the third occasion when the second officer came on to the poop he purposely took the longest way round to reach the master, was hardly credible. At that time the second officer was rushing back, after having hove the lead himself; seriously alarmed, there seemed to have been no reason for any useless delay on his part. After a prolonged consideration of the evidence which had been put

forward, the Court were unable to come to the conclusion that the more serious charges urged against the second officer had been proved to its satisfaction. The Court observed that should the master be advised that he could substantiate some of those charges before a Criminal Court under the provisions of the Merchant Shipping Act, then it was a matter for his consideration. The duty of the present Marine Court of Inquiry was limited to an investigation into the question whether or not the master, or any of the officers under his charge, had incurred the penalty involved in the suspension or cancellation of their respective certificates. That, however, under the authority of reported cases on the same matter in English Courts, was limited to cases only where the vessel had received *material damage*. The *Knight of the Garter* fortunately had escaped injury of that serious kind. Whilst, however, the Court considered on the evidence before them that the more serious offences charged against the second officer were open to doubt, and felt constrained to give him the benefit of that doubt, enough remained behind to justify the Court in the expression of the strongest and most unqualified censure of his conduct from the moment when he was left in sole charge of the vessel till she stranded on the Orissa coast. The Court recorded that they attributed the casualty to the ship *Knight of the Garter* in some measure to a slight westerly set inshore, but mainly to the fact that wrong soundings were persistently given by the man in the chains heaving the lead, who, to the knowledge of the second officer, was manifestly unequal to the task he was called upon to perform. The Court observed that the log-books of both the master and first officer were kept in a creditable manner; and the charts used in the navigation of the vessel were of the best kind authorized by the Admiralty. It was to the credit of the master that he did everything that lay in his power to get his ship afloat during the time she lay on shore. The Court exonerated the master from any blame in the mishap to his vessel and his certificate was returned to him. The second officer was severely admonished and his certificate returned to him.]

126. The Italian wooden barque BEATRICE [of Genoa, 747 tons register, official number 2789], from Maulmain to the Channel, with a cargo of teak timber. The pilot proceeded on board the barque, lying in the Salween or Maulmain river (Burma coast), on the night of the 12th May, and found her to have a strong list to starboard. At daylight the next day (the 13th) he unmoored and got ready; at 10-30 A.M. on the flood making she canted to the tide, when the tug went ahead, passed hawsers and remained riding with 30 fathoms of chain. At half past 12 o'clock, when the tide had risen to 10′, the pilot commenced to heave in the barque's chain, and at 1 P.M. the tug *Ajax* began towing her down the river; at which time, adding the rise of the tide, 11′, to the water given in the channel, the pilot stated that there would be 21′; as the vessel was drawing 19′ 9″, there remained 1′ 3″ to spare. The *Beatrice* on arriving close to the Múpún reef buoy took a broad sheer to starboard, and as she was recovering herself, the tide having caught her broad on the port beam, she listed over considerably and touched the ground, but did not stop her way; she proceeded on, but on nearing the buoy took another sheer into the bight and grounded again slightly, when the pilot ordered the tug to let go the hawser, and the vessel dropped her anchor with 15 fathoms of chain out, but directly the anchor checked her way the vessel again listed over considerably to port. The steamer then went ahead, and after passing hawsers continued her way down the river to Halfway creek, where she was anchored at 4 P.M. Off the Natmaw point the pilot set the staysails, but on doing so she again listed over heavily to port. The following morning (the 14th) the crew appeared before the master and refused to proceed, asserting that the barque was too crank, whereupon the master requested the pilot to moor the vessel. The pilot stated that had the *Beatrice* taken the ground, as the master alleged, she would have

pointed up-stream, the tug's hawser would have parted, and the vessel would have been aground some time; and taking into account the strength of the flood-tides, which ran very strong owing to the Múpún reef in the vicinity, especially during springs, and the crank disposition of the barque, it would not have been an easy task to have got her off had she grounded. The *Beatrice* whilst at anchor had such a strong list, that it seemed as if she was ashore. The master accordingly proceeded up to town (Maulmain), and with the assistance of the Consular Agent for Italy obtained the services of two Surveyors and had the vessel examined. On an examination being made the surmises proved to be correct, and the vessel had to discharge and re-stow. On the 16th the Surveyor to the port, assisted by a ship-master, proceeded on board the *Beatrice* lying at Halfway creek, for the purpose of examining and reporting on the crank condition of the vessel, the crew having refused to proceed to sea on that account. They reported that on arrival on board they found the barque had a list to starboard of about 20°, but otherwise in good trim, her draught being forward 19′ 5″ and 19′ 9″ aft. The master informed the Surveyors that the vessel after starting from her moorings in tow of the steam-tug *Ajax* grounded twice slightly, thereby causing her to heel over, but did not remain fast, in consequence of which they considered she could not have sustained any damage. Sounded the pumps during an interval of an hour and a half, and found the vessel to be making no water. On the upper deck there were two large iron water-tanks, 6′ in height, and holding nearly 6 tons each, one over the after hatch and the other before the foremast, also a smaller iron tank and two casks containing all the vessel's supply of water. It seemed that the chain lockers had been removed from below, and that the greater portion of the two bower cables were stowed on each side of the fore hatch on the top of the teak timber close under the deck, and the remainder of the cable was reported to have been stowed in the after hatch. The bulkhead of the lazarette, about 25′ from aft, had been removed to make room for logs of timber, which had been carried aft to within some 12′ of the stern. In this small place the ship's provisions were stowed, and a ton of small timber had been removed to the upper deck with the view of cutting the deck of the lazarette to allow the sand ballast being put below to trim the vessel. The Surveyors observed that the barque was exceedingly crank, and the pilot reported her being very tender when towing down the river. The crew were satisfied with the vessel, but only complained of her want of stability, and all, with the exception of the master, refused to go to sea in her in that condition. On swinging to the flood-tide the barque heeled over considerably, and even on rolling a large cask of water from one side to the other she heeled very perceptibly. They were of opinion that the crank condition of the *Beatrice* was due to some farther causes than those noted above, *viz.*, the stowage of water and cables on deck, the removal of the bulkhead in the 'tween decks, and the chain cables from the hold to make room for the cargo; for with such good beam they considered that the vessel would not have shown so great a want of stability had the cargo been properly stowed in the lower hold. The Surveyors recommended that the cargo be discharged and, if necessary, a small quantity of ballast taken in, the cables properly stowed below and the two large water-tanks carried under hatches. The barque returned to town on the 20th, and as advised discharged the major portion of the cargo, and after taking in a sufficient quantity of ballast, reloaded and sailed again, in what was considered proper trim, on the 4th July. On the 26th the master of the Italian barque *Esemplare* reported having signalled the *Beatrice* in latitude 7° N., longitude 98° E., all well, and on her voyage. Value of damage to the barque, ₹1,000; cargo, ₹2,000. No loss of life.

[A Court of Inquiry was held in the office of the Port Officer, Maulmain, on the 2nd and 5th June, by the Assistant Commissioner, Amherst, under Rule XXVI of the Maulmain Pilot rules, for the purpose of investigating the circumstances attending the casualty to the barque *Beatrice,* which vessel, it was alleged, grounded

twice slightly in the Maulmain river, whilst outward bound on the 13th May. The Court recorded that having assembled pursuant to citation, the defendant (a licensed pilot of the port of Maulmain) was called before them and charged with carelessness in having allowed the barque *Beatrice* to take the ground whilst under his pilotage charge; the papers and correspondence embodying the statement of the case were then laid before the Court by the Government Prosecutor, whereupon they proceeded to hear the evidence. A sketch of the river off Múpún, where the casualty was alleged to have occurred, was, after having been inspected by the president and members, filed. The master of the tug *Tavoy* alleged that on the day in question, whilst proceeding up the river through the Sirocco channel, he noticed the *Beatrice* about two ships' lengths off lying across the tide rolling heavily, but after she rolled three times her head turned to the westward, and it being half-flood the *Ajax,* which was ahead, endeavoured to tow her out and then cast her off, when the barque let go her anchor and swung to the tide with her head down the river. He stated—"I think the rolling I noticed was caused by the vessel's heel touching the ground. It is my opinion that she rolled three times only because her heel touched the ground, as I have stated. When I saw the rolling the barque was halfway between the Múpún reefs and the Sirocco buoy. She was not in the deep channel when I saw her roll, but was to the northward of it." He stated that on leaving the Múpún bight with large vessels in tow from the lower berths, he sometimes experienced difficulties; on approaching the Múpún reef buoy vessel was caught by the flood-tide on the port bow and set to the northward, but in the present instance the *Beatrice* had started too early, therefore her heel took the shallows to the northward of mid-channel. He considered that the tugs *Defiance* and *Tavoy* were sufficiently powerful to handle a ship, but steamers with inadequate towing power and size would not be able to take deeply laden vessels in safety out of the Múpún bight against a strong flood-tide. It might be done easily at slack water, but there would have been risk in a vessel leaving the bight drawing 20′ or more, two days before the new moon, at high-water reaching the Halfway creek anchorage, because she might not have water in the channel below. In his experience, extending over a period of some 12 years, he had never seen a vessel roll as the *Beatrice* did, without touching the ground; a ship might strike the ground and yet show no sign of damage, but her master, if on board, *should* be able to state whether his vessel struck the ground or not. The master of the barque positively stated that on the day in question, when nearly 60 or 70 yards from the Múpún reef buoy, the vessel took one heavy roll to starboard followed by two or three less heavy ones, but he was uncertain whether she grounded owing to there being no vibration. After the rolls the pilot anchored the *Beatrice* until 2 P.M., when the tide having slackened she again started, but rolled slightly in consequence of her being out of trim, and as she was only a few inches by the head, he thought that she struck the ground amidships on the bilge of the starboard side. The first officer swore that three minutes after starting, the barque rolled once heavily and then two or three times slightly; and there being no vibration, he did not think that she struck the ground. The accused was present in Court during the whole of the proceedings, and had full opportunity of cross-examining the witnesses, but he called no one. The Court observing that any further evidence was not necessary, ordered the parties to withdraw, in order that they might consider their finding, and after having duly considered all that had been brought before them, were of opinion that there was no evidence that the Italian barque *Beatrice* touched the ground. The pilot was therefore acquitted.]

The Commissioner of the Tenasserim Division confirmed the finding of the Court, and requested to be informed whether there was no way in which the less

powerful tugs could be prevented towing vessels of larger size and deeper draught than was considered safe. The Port Officer, Maulmain, replied that he did not think it would be possible to lay down any hard-and-fast rule on the subject, as it was a matter that should be left in a great measure to the discretion of the pilots. He attributed the comparative freedom from accidents to the shipping on the Maulmain river for many years past to the employment of the powerful and efficient paddle tugs, which hitherto had almost the entire monopoly of the towage. When, however, other vessels of inadequate towing power might ply in the Salween river, it was impossible for the Port authorities to interfere with the arrangements they might make with the shipping, especially as in many instances, as in towing vessels up the river with the tide, or those of moderate draught either way on the neap-tides, or at the close of the S. W. monsoon, with the river swollen and the flood-tides very slack, it was practicable for them to tow the deepest vessels in safety. All that could be done was to warn the pilots against allowing the vessels they might be in charge of to be taken in tow, or kept under weigh when they were doubtful of a steamer's capacity for towing them in safety, and a notice had been duly issued to that effect to the members of the service.

127. The British Indian padow LAXUMEEPERSAD [of Surat, 43 tons register, official number 3049, age 27 years], from Bánkot to Dholera, with a cargo of cocoanuts. On the 13th May the padow whilst leaving the port of Bánkot (Bombay coast), owing to the ignorance of the tindal grounded on the bar at about 4 A.M. She was got off after jettisoning a considerable portion of the cargo. No damage to the padow. Cargo worth R863 was lost. No loss of life.

128. The British Indian dhoney THEROOPORUR MOORUGIEN PURAVEY [of Madras, registered tonnage, official number, &c., not reported], from Quilon to Pondicherry and Madras, with a cargo of timber, tamarind, and cotton. On the 14th May the dhoney was sailing up the Gulf of Manár preparatory to passing through the Pámbam Pass; at 9 P.M., owing to the dhoney being overladen and the tindal finding her near the breakers, he anchored when too late, and in consequence of her being topheavy and rolling, she took in water on both sides and dragged ashore on the coral reefs off Pulli shoal in the Pooma channel. She got off and having filled with water sank, but was subsequently recovered with slight damage. Value of damage to the cargo, R100. The crew, 10 men, swam ashore. (The casualty could have been avoided had the tindal taken a pilot at Kilakarai, who would have at once directed him not to go through the Pooma channel.)

129. The British iron screw steamer BRANKELOW [of Liverpool, 1,661 tons register, official number 86253], left Bassein on the afternoon of the 14th May, bound for Malta, with a full cargo of rice, in charge of a pilot. She proceeded down the Bassein river very satisfactorily, and was anchored for the night in the Gnaputau reach. On the following morning (the 15th) she weighed anchor and continued her voyage until 3-40 P.M., when she got up to Diamond island; the master with the pilot was on the bridge, the second officer at the telegraph, and one man at the wheel; she was steered from the bridge by steam, but did not steer well at any time. There were three compasses and two chronometers on board, and they were all in good order, and, it seemed, was properly equipped with boats, anchors, &c. On reaching the N. E. point of Diamond island, in consequence of the lead not being hove, the *Brankelow* grounded on the reefs half a mile N. E. $\frac{3}{4}$ E. from the North end of Diamond island, entrance to Bassein river, Gulf of Martaban (Burma coast). The steamer struck the ground several times and heeled over, first to starboard and then to port. At that time she was going ahead full speed, the sea was calm, the tide low, weather fine but cloudy, and wind light from N. W. It appeared that the vessel was going round on the starboard helm and no cast of the lead was taken till after

the steamer had grounded, although the Fairway buoy was seen half an hour before the accident occurred. The engines were immediately reversed full speed astern, and about three minutes afterwards she came off, when the vessel proceeded till she was one mile South of the Fairway buoy, where she was safely anchored at the request of the master. The pilot then left the steamer and landed at Diamond island. After the holds had been sounded she was found to be making no water, but at 7 P.M. she commenced making water in the fore hold at the rate of 5″ per hour, and as the weather looked threatening, the master deemed it prudent to proceed to Rangoon for the purpose of having the bottom surveyed and repaired. The pilot stated that as the vessel was making no water when he left, he was under the impression that the steamer had received no hurt by her having touched the ground, but the next morning (the 16th) the master of the *Brankelow* came ashore at Diamond island to telegraph to Rangoon, when he informed the pilot that the vessel was making water, and that it was his intention to take her round to Rangoon. All hands were at once ordered to the pumps, which were kept constantly going the whole of the night and on the following day; a course was then steered for Rangoon, and on the 17th she was brought up into the harbour, where anchor was cast; after discharging her cargo she was placed on the gridiron to inspect the damage. Value of damage to the *Brankelow,* R14,000; cargo, R3,022. No loss of life.

[A Special Court of Inquiry was held in the Court of the Deputy Commissioner, Rangoon, by the District Magistrate, on the 2nd and 3rd June, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances attending the grounding of the above steamer off Diamond island whilst in charge of a pilot. On the 2nd June a copy of the statement of the grounds under Rule XXIII of the Bassein Pilot rules, upon which such charges were framed, and of the charge itself, were handed to the accused before the investigation commenced. The Court charged the pilot with incompetency or misconduct in the discharge of his duties in miscalculating the distance off Diamond island and keping her too near the reefs, and in not availing himself of the services of the leadsman in taking a cast of the lead. The Court recorded that of the three assessors, one was master of the steam-ship *Irrawaddy;* and the others, a merchant and a pilot of the Bassein river, were appointed by the Chief Commissioner and summoned by the President. The Court having assembled pursuant to citation, the defendant, a licensed pilot of the Bassein port, was called, and the papers and correspondence relating to the case produced by the Government Prosecutor. The witnesses for the prosecution were then called and examined, and on conclusion of their evidence the accused was examined by the Court, after which the Court ordered the parties to withdraw, in order that they might consider their finding and order. From the statement of the master of the *Brankelow* it seemed that while the steamer was going down the Bassein river on the day in question the lead was never used, not even on crossing the bar; the leadsman was in attendance, but the lead was not hove till after the vessel struck on the reefs. At the time of the accident the vessel was half a mile from Diamond island, the eastern line of the coast of that island was not open, but Cape Negrais was all open with Pagoda point. Immediately after striking the ground the second officer took a sounding and found a quarter less four fathoms; the steamer never lost her way, and she went clean over the obstacle, although the master had reversed the engines for nearly three minutes. The master found the pilot very attentive and careful to the steering of the vessel at all times. The second officer alleged that the position of the steamer, just before the casualty happened, was about three-fourths of a mile from the North end of Diamond island; it was a clear day, and the island was on the starboard bow; the Fairway buoy was

sighted on the port quarter abaft the beam after the vessel struck. The man at the wheel stated that the steamer was being steered right for Diamond island, and when a good distance off he was ordered by the pilot to starboard the helm, and the next order was to steady, and immediately afterwards she struck with her head to the S. W., the Fairway buoy being then about four points on the port bow. The pilot swore that he took the course usually done after getting over the bar. He steered to Diamond island until he got the Fairway buoy five and a half points on the port bow a good mile from the island, he then starboarded the helm till the Fairway buoy was two points on the port bow, after which the vessel was steadied, but finding that she was nearing Diamond island through an unusual set of the tide, the pilot starboarded the helm again, and when she was going on the starboard helm the steamer struck on the reefs, the engines were reversed astern, when finding that the vessel was moving, the pilot put the helm a-starboard, and the engines going full speed ahead, the steamer was got off and headed to the Fairway buoy. The accused stated in his report that this occurrence was the first one, during his career as a pilot on the Bassein river, on which any vessel under his charge had come to harm, and begged that this fact, in connection with the blameless manner in which he had hitherto prosecuted his duties, would lead to his being leniently dealt with in this instance. The Port Officer, Bassein, reported that the accused had generally maintained the reputation of being a very careful and steady pilot, and, as far as he was able to judge, the defendant was all that his predecessors had said of him. The only charge brought against him in the past was the case of grounding the barque *Ophelia* in October 1882. The finding of the Court on that occasion showed that the defendant was only blamed for infringement of Rule XXXII of the Bassein Pilot rules in moving that vessel after dark without first obtaining the written consent of her master. The Court in that instance directed his license to be suspended for one month. The Court, after having duly considered all the evidence that had been brought before them, were of opinion that the pilot was guilty of the charges brought against him for having caused the grounding of the *Brankelow* off Diamond island. The Court considered that the accident was due to the carelessness on the part of the defendant, a licensed pilot for the port of Bassein, in not taking soundings on nearing Diamond island, and in consequence getting out of the channel. The Court, taking into consideration the previous good character of the pilot, were unable to recommend a smaller punishment than reduction from full to 20′ draught for a period of 12 months.]

The Chief Commissioner of British Burma confirmed the finding of the Court, and directed that the pilot's license be reduced from full to 20′ draught for a period of 12 months.

130. The Native bagla DOWLUT PURSAD [of Jafarabad, 141 tons register, official number 4178], from Kumta to Bombay, with a cargo of cotton. The bagla left Kumta on the 16th May, and met with stormy weather when near New Goa (Portuguese territory) and sprung a leak; the crew, after jettisoning a considerable portion of the cargo, put into Panjim in an unseaworthy condition, for shelter. After repairing the damage she proceeded to her destination. Value of damage to the bagla, ₹200; cargo worth ₹5,100 was lost. No loss of life.

131. The British Indian muchwa NAODI MUCHERY [of Broach, 11 tons register, official number 1619, age 37 years], from Broach to Talája, with a cargo of cotton seed. On the 15th May the muchwa met with heavy weather and boisterous sea, and the tindal, finding that he could not proceed any farther, put into the Kim river (Bombay coast). At 3 A.M. on the 16th, the weather having somewhat moderated, she left again on her voyage, but was driven on to a sand-bank. The whole of the cargo was washed out of her, when she floated. Value of damage to the muchwa, ₹50; cargo all lost, value, ₹ 354. The crew saved themselves by means of a raft.

132. The British Indian padow DARIADOWLAT [of Surat, 11 tons register, official number 3475, age 32 years], from Broach to Talája, with a cargo of cotton seed. On the 15th May the padow took refuge in the Kim river on account of heavy weather and boisterous sea. At 3 A.M. on the following day, the weather had somewhat moderated, and having put out to sea again, she was driven on to a sandbank near Bhagvá (Gulf of Cambay). The crew tried to get her off, but failed; subsequently, after jettisoning the greater portion of the cargo, she floated off and was taken into Talája bandar. Value of damage to the padow, ₹125; cargo worth ₹390 was lost. The crew saved themselves by floating ashore on pieces of timber.

133. The British wooden barque CHIPPEWA [of Glasgow, 1,072 tons register, official number 46179], from Akyab to Karrikal, with a cargo of rice. On the 17th May the barque was proceeding on her voyage across the Bay of Bengal. At 8 P.M. that night, when some 240 miles to the westward of the South Andaman island, in latitude 12° 01′ N., longitude 88° 33′ E., she encountered heavy squalls from westward with a confused breaking sea from the N. W. and sprung a leak. The pumps were at once set on, and on examination of the fore hold on the following day, it was found that the water was entering under the bows. Attempts were made to stop the leak, but without success, and it was found to increase. The pumps were kept constantly going by the crew with great exertions, when the water began to decrease. The barque, after having experienced heavy weather, anchored in Karrikal roadstead on the 8th June, where, after discharging her cargo, the leaks were temporarily stopped and she was finally taken to Rangoon for repairs. It was reported that when lying in the Rangoon river previous to the voyage she had taken several very heavy sheers, and was struck by sunken timber unknown to anybody on board, and consequently the worms getting at the bare planking, and having experienced heavy squalls, she sprung a leak. Two Marine Surveyors, assisted by a Carpenter Surveyor, proceeded on the 29th July on board the *Chippewa,* lying on the gridiron, for the purpose of examining the hull and ascertaining the extent of the leak. They reported that they found the copper had been stripped off the bow on each side, and that one worm-eaten plank had been taken out just above the fore foot, on the port side. After a careful examination they were of opinion that two other planks on the port side, which were worm-eaten, should be replaced, caulked, and re-coppered. They were unable to report upon the condition of the other parts of the hull unless the copper was stripped off in order to allow of a further examination, as the worms appeared to have got into those planks through a sheet of copper having been torn off a considerable time. On the 3rd August the barque was again surveyed, when the Surveyors reported that they had the vessel stripped of her copper in various places fore and aft, and after a thorough examination found that the planking and timber (which was laid bare by being dubbed) presented a fresh and good appearance, and that the planks recommended to be renewed had been replaced to their satisfaction. They were of opinion that, after caulking with oakum and pitch from the copper to the covering board, and replacing the copper, the *Chippewa* would be strong, staunch and tight, and fit to carry a cargo of timber to Europe. On the 10th August the vessel was finally examined. The Surveyors stated that after carefully examining her bottom they found that the barque had been re-coppered to their satisfaction in the various parts laid bare on the previous survey. She had also been caulked above the copper, and was, as the Surveyors observed, quite ready to load a cargo of timber for Europe. Value of damage to the barque, ₹10,000; the cargo was damaged, but to what extent was not reported. No loss of life.

134. The British wooden ship ERIN'S GEM [of Liverpool, 1,480 tons register, official number 74525], from Calcutta to New York, with a general

cargo. On the 17th May the ship under charge of a pilot and in tow of the steam-tug *Clive* was proceeding down the Hooghly river. At 4-30 P.M., when about half a mile below the Bellary tower, the tug took a sheer to the eastward, the soundings given being 4½ fathoms; the ship in trying to follow her also sheered to the eastward; the steamer having righted herself before the ship, she passed close under the latter's bows, and going full speed ahead parted both hawsers, thus causing the *Erin's Gem* to strike the ground in the Bellary channel; Bellary tower bearing N. by E. ¼ E., Centre Eastern Bellary buoy N.E. by E., and the Lower Western Bellary buoy W. by S. The ship remained stationary, and when the flood-tide made, the pilot ordered the crew to set the topsails in order to back the vessel off. At 9-40 P.M. the tug after having swung flood anchored ahead of the ship for the purpose of passing hawsers to try and tow her off, but before she could do so the *Erin's Gem* floated off at 11 P.M. and sailed up to Kalpi, whence the pilot anchored her at 12-45 P.M. for the night, the steamer following her. The wells were continually sounded after the accident, and finding that the vessel made no water, the pilot proceeded the next morning (the 18th) to sea with the consent of the master. She was aground for 6 hours. No damage to the ship or cargo. No loss of life. (The casualty was accidental, having been caused by the bad steering qualities of the ship *Erin's Gem.*)

135. The French wooden barque LE CHAMPENOIS [of Nantes, 435 tons register, official number not reported], from Réunion to Calcutta, with a cargo of sugar and stone ballast. On the 14th May, the barque under pilotage charge and without steam proceeded up the Hooghly river, and at 11-45 A. M. the pilot anchored her at Diamond harbour. On the 16th the vessel sailed up to Hooghly point, and at 1 P.M. anchored abreast the point. On the 18th the pilot whilst weighing the anchor observed that it had caught the barque's fore foot, and would not come clear. Finding that if he did not slip it, the anchor would most assuredly hook on the bar in the Western Gut, James and Mary's; after one or two more efforts he slipped the anchor with 15 fathoms of chain, Hope's obelisk bearing N. N. W., and the Double tree mark a little open with the upper Nynan mark. The anchor and chain lost by the *Le Champenois* were not replaced at Calcutta, neither had they been recovered. The value of the lost articles was about ₹930. No damage to the barque or cargo. No loss of life. (The casualty was accidental.)

136. The British iron ship UDSTON [of Glasgow, 1,695 tons register, official number 68082], from London to Calcutta, with a general cargo. At 6 o'clock on the morning of the 20th May the pilot boarded the vessel, after which she made all sail, and an hour afterwards passed the Eastern Channel light-ship and proceeded up the Hooghly river without the aid of steam. At 11 A.M., when at Saugor, she met the tug steamer *Hunsdon* proceeding down, and at the request of the master of the *Udston* hawsers were passed to the tug, and the ship, after having shortened sail, was taken in tow. At noon there was a fresh breeze and clear weather. At 4-20 P.M., after passing Hooghly point, the pilot ordered the mainsail, the cross-jack, the topgallantsails, the royals, the staysails, the spanker, the main trysail, and the inner and outer jibs to be unbent. At 5 o'clock that afternoon the ship was proceeding up the lower part of Fisherman's point anchorage, going dead slow, keeping on the eastern side of the channel preparatory to turning round to anchor for the night, when the leadsman gave 7 fathoms of water. Twenty minutes afterwards, whilst a little above the upper Fulta mark, and in the act of turning with the tug broad on the port bow and the ship's helm hard over to starboard, the *Udston* unhappily took the ground forward about 1½ miles below Fisherman's point. The ship suddenly sheered back to starboard and stopped, the leadsman at the same time called out 3½ fathoms, but immediately before this the pilot had

7 and 6½ fathoms of water. The tug continued to pull on the port bow for half an hour, but without success, and the tide having fallen she was cast off. A boat was then lowered to sound round the *Udston;* 18′ and 19′ were found all round the vessel alongside and 6 fathoms about 10′ from the port quarter, and immediately outside of that 7 to 8 fathoms. On the next morning's flood-tide the steamer made an attempt to tow the vessel off by the stern, but failed to move her, and as the tides were taking off, it was considered advisable to lighten the vessel in order to float her. The tug then cast off and proceeded to town (Calcutta) with the master to engage the assistance of lighters and coolies. In the meantime the pumps were carefully attended to, and the vessel was not making any water; she settled very little in the mud and lay perfectly quiet and upright. At low-water the wind being moderate, with fair clear weather, the crew were employed in sending down the topgallant and royal yards, rigged in jibboom, and unbent the topsails and foresail. On the 22nd the crew were employed rigging gear for discharging cargo. At 2-15 P.M., the same afternoon, lighters came alongside, and the crew, with the assistance of 100 coolies, started at once to discharge bar iron from the main hatch, before which they ran the largest kedge anchor out with 60 fathoms of 2½″ wire rope attached in 7½ fathoms of water on the port side. They then hove the line well tight, and after having made it fast, sounded all round the vessel and found 3 fathoms of water, and about 20′ from the ship and on the port side 6½ fathoms, which deepened gradually. On the 23rd the crew discharged 160 tons of cargo from the main and after hatches; the topgallant rail, the bulwark and an iron-bound purchase block were damaged in discharging the same. After the ship had been lightened of 250 tons of cargo, attempts were made on the night of the 24th and morning of the 25th to float the *Udston* by the aid of the steam-tugs *Clive* and *Hunsdon,* but unavailingly, and the vessel sunk one foot forward and two feet aft into the mud, which was soft and very sticky. The discharging of cargo was continued, and after having unloaded about 50 tons more cargo, there being no more boats alongside, the master went to town to engage lighters. At 12-30 P.M. on the 26th, the crew laid out a kedge anchor with about 50 fathoms of 5″ wire hawser on the port quarter in 8 fathoms of water and hove the line tight. At 6 P.M., six cargo boats went alongside, and the men commenced unloading from the fore and main hatches. On the 27th at 10-45 A.M. the *Udston,* after having been lightened altogether of nearly 500 tons, floated and came off to the anchors which had been laid out, but before she could be brought up she tailed the bank again, where she remained until 11 o'clock the next morning (the 28th), when she floated again, and with the assistance of the steam-tug *Court Hey* was towed up to town the same afternoon and moored at No. 3 jetty. When the ship came off, the cable of the anchor, which had been let go at the time she floated the day previous, ran out with a heavy strain on it, and in stopping it the windlass was so damaged as to render it useless for heaving in, consequently the starboard anchor with 30 fathoms of chain had to be slipped. The ship had been aground for 8 days. The Surveyor to Lloyd's Agents reported that he proceeded on the morning of the 1st June on board the ship *Udston* lying afloat at No. 3 jetty, discharging her cargo, in order to ascertain whether she had taken any hurt by grounding in the Hooghly river at a place some 28 miles from Calcutta, and to report whether it would be necessary to place the vessel in dry dock for examination after the cargo was discharged. After making a careful survey, the Surveyor found no damage above water, except that the main and poop decks were leaking badly and the windlass damaged. The ship having been ashore in a tidal river for 8 days, during which time several attempts were made to get off by heaving heavy strains on anchors laid out, and by towing, and having on one occasion floated and immediately grounded again, the Surveyor

was of opinion that another cargo should not be loaded until her bottom was examined in dry dock. He, therefore, recommended that the vessel be placed in dry dock as soon as the cargo was discharged. In the meantime the damage to the windlass should be repaired to enable the vessel to work her anchors when going into dock; also the decks should be well caulked, and this should be taken in hand at once whilst the weather was dry. The vessel was put in the Hooghly dry dock, Howrah, when on the 12th June she was again surveyed. The Surveyor to Lloyd's Agents, accompanied by a Marine Surveyor, after making a careful examination reported that the *Udston* had not sustained any serious injury by the grounding. The paint on the keel, and on the plates under the bottom, and on the bilges, was much chafed and rubbed off to the bare iron in many places; above the bilges the paint was chafed and the plates scratched apparently by the wire hawsers rubbing on the sides when endeavouring to heave the vessel off the ground; the paint on both bows under water was also much chafed and the plates scratched by the chain cable. The Surveyor advised that the old paint be chiselled or scraped off where chafed and the plates well rubbed with sandstone, and a fresh coating of paint laid on the plates where bare, and that the whole bottom from the keel to the load line be well cleaned and coated with two coats of good paint and a coat of tallow, besides the extra coating put on the bare places; the paint on the topsides in midships was also much chafed in places by the cargo boats when the vessel was on shore, and should have a fresh coating of paint laid on. The Surveyors observed a slight wave or hollow place on the third and fourth strakes of plating from the keel under the forward part of the main hatchway on the starboard side. This might have occurred in the building of the ship, as the rivets showed no signs of straining, but when the cargo was discharged from that part the loose ceiling and limber boards should be lifted and the cement carefully examined and repaired if broken or started from the iron; there was also slight moisture issuing from several of the butts under the bottom, but to this the Surveyors attached no importance as the rivets showed no signs of straining. The topgallant rail and bulwark on the port side broken and started from the after hatch gangway to the front of poop, to be repaired with a piece of new topgallant rail about 30′ in length and the topgallant bulwark re-fastened. This damage, the master stated, was done by the slings of cargo knocking against the rail when discharging to lighten the ship when on shore. The following articles were lost, broken, and destroyed when the vessel was aground, *viz.*:—the starboard bower anchor and 30 fathoms chain cable slipped when the ship floated, might be recovered before the ship leaves the port; a kedge anchor and a $3\frac{1}{2}''$ Manila line attached lost, a $2\frac{1}{2}''$ wire line attached to anchor was cut when the ship floated and part of it was lost overboard; the binnacle was slightly injured by the line when cut; two iron-strapped blocks and four wire-strapped blocks used for discharging cargo were broken and destroyed; two coils of $3\frac{1}{2}''$ and a coil of $3''$ Manila ropes cut up for falls and slings for discharging cargo to lighten the vessel when aground; and the cog wheel on the capstan spindle of the windlass and the fore hatch winch broken when the vessel was aground. They recommended that all the above noted articles be replaced, repaired and made good, and that the decks be thoroughly caulked fore and aft and made water tight. On the 24th the *Udston* was finally surveyed whilst in the Hooghly dry dock, Howrah, and after she came out of dock. The Surveyors reported that after an examination they found that the repairs had been well and faithfully executed to their satisfaction, and the ropes and kedge anchor lost and destroyed when on shore replaced; the bower anchor and 30 fathoms of chain slipped after the ship floated had been recovered and put on board: the cement and floors in midships after the cargo was discharged examined and found intact and adhering to the iron and the floors uninjured. The *Udston* was tight, staunch, and strong, and fit to carry a dry

and perishable cargo to any part of the globe, and in the Surveyor's opinion was a first class insurance risk. Value of damage to the ship *Udston,* ₹7,921; cargo, ₹8,310. No loss of life.

[A Departmental Committee of Inquiry was held in the office of the Port Officer, Calcutta, on the 25th June, to inquire into the circumstances connected with the grounding of the above vessel. The Committee recorded that after reading the order for the assembling of the Committee and the pilot's reports of the casualty, they proceeded to examine the witnesses. The Committee recorded that the master of the ship *Udston* stated that the tug was eased down about 5 to 6 minutes before the casualty happened. He was standing on the fore-part of the poop seeing that the pilot's orders were carried out; the pilot being on the forecastle. The master said that his ship was proceeding parallel with the bank at the time of the occurrence, and was under the influence of the starboard helm; the tug was then almost at right angles, and was going about half speed. The pilot appeared to be paying every attention to the vessel, and the leadsman was giving 7, 6, and then $3\frac{1}{2}$ fathoms of water when the ship grounded; the *Udston* was then drawing 21′ 8″ fore and aft. Previous to the accident the helm was put to port, and to that cause the master attributed the casualty; he said that he had been three voyages in charge of the *Udston* to Calcutta, and had invariably seen the helm put against the tug in turning in the Hooghly river. The pilot of the tug *Hunsdon* stated that he commenced easing down below the Fulta flat buoy, and preparatory to turning round the tug put the helm over; she was going dead slow, and had very little way on. He considered that the *Udston* was sufficiently far off the bank, and did not think that she would ground. There was no mark to define the edge of the flat where the casualty occurred. He attributed the accident to a Westerly wind blowing, thus causing the vessel to sagg into the bank. An able seaman, who was at the wheel, stated that before the ship grounded the helm was put hard-a-port, the next was to steady when the steamer was right ahead, and the next order hard-a-starboard was given at the time the tug was crossing the bow. The Committee observed that on the conclusion of all the evidence in the case they found that the flat was not defined by any fixed mark, and that a pilot was solely guided by his judgment and the lead; they were therefore of opinion that the pilot was fully justified in having taken an extreme track preparatory to turn to anchor, and that such was necessary and customary. The Committee did not think that the pilot was at all to blame for the accident.]

The Port Officer recorded that the *Udston* grounded whilst turning round to anchor off Fisherman's point, and was got off after being on shore for 8 days without material damage, after discharging 500 tons of her cargo. The case was a very simple one—a vessel, in order to turn round preparatory to anchoring, was obliged, owing to the narrowness of the channel, to go as close to the bank as possible, and the pilot had only his eye to guide him as to the distance, the lead giving no warning. The Port Officer concurred with the Committee that it was an accident for which the pilot was not to blame. The pilot was just about the breadth of the *Udston* too near the bank, and the place was the customary and authorized anchorage. Subsequently the Port Commissioners having deemed it necessary and expedient, leading marks were put up in order to define the edge of the flat on which the ship *Udston* grounded.

The Lieutenant-Governor of Bengal, accepted the finding of the Departmental Committee of Inquiry that the pilot was not to blame, as the flat on which the *Udston* grounded was not defined by any fixed mark.

137 & 141. The British iron ship RELIANCE [of Liverpool, 2,568 tons register, official number 87937], from Liverpool to Calcutta, with a cargo of salt. On the 25th May the vessel, in charge of a pilot, was proceeding up the Hooghly river. The pilot stated that when the ship left Kedgeree at 6 A.M., in tow of the

steam-tug *Court Hey,* there was a moderate breeze from the S.-W., but on entering the Eastern Gut, James and Mary's it fell calm. When the vessel was at Luff point the pilot sighted 13 feet at the Hooghly point semaphore, and bearing in mind that the *Reliance* was a heavy ship, he made every allowance for the little tide then running, by passing close to the *Waterloo* wreck buoy; the vessel steered well, but was slow in answering her helm. At 9-20 A.M., when a little above the buoy, the vessel took a slight cant to port, the *Reliance's* hawser was immediately slacked up and the tug's helm put hard-a-starboard, and before she could recover it caused a considerable loss of position, and in consequence of the steamer not having enough power to prevent the ship drifting out of Nos. 3 and 2 tracks, the *Reliance* grounded in No. 1 track, Eastern Gut, James and Mary's. The hawsers were cast off, and at 11 A.M., she was taken in tow again, and with the aid of the tug she was got off after being aground for two hours. The ship was again taken in tow, but the tug being quite unable to straighten her up in the channel, the anchor was let go, and the vessel swung to the ebb-tide in No. 4 track; before, however, the *Court Hey* could pass hawsers ahead, the *Reliance* grounded a second time at 11-30 A.M., the Hooghly point telegraph station bearing E by S. ¼ S., the Tidal semaphore E.-N.-E., and the Muckraputti buoy W. ¼ S. The vessel remained perfectly upright till high-water, when she floated off at 11 P.M. the same night after having been aground for 12 hours. Immediately the ship was taken in tow the steamer fell off on the ship's starboard bow and could not recover herself; the steamer had thus given the *Reliance* some way, and the consequence was that the ship grounded a third time on the flat below Nurpur black Nun buoy. On the water rising the next day (the 26th) the tug tried to tow her off but did not succeed, and the water having fallen, the *Court Hey* was cast off, and the master sent the steamer up to town for assistance; the master considered that before the ship could be got off she must be lightened, and in the meantime the crew began jettisoning the cargo up to 9-30 A.M. of the next day. At 9-30 o'clock that morning after jettisoning about 250 tons, and the tug *Retriever* having anchored in Hooghly bight from Saugor, the master asked the pilot of that tug to tow the *Reliance* up to town, and he having consented, both steamers went alongside and tried to pull her off, when at 11-10 A.M. of the 27th, she floated after having been aground for 36 hours. She was then taken in tow by the steamers *Retriever* and *Court Hey* combined—the former vessel being alongside, and the *Court Hey* ahead— arriving at town (Calcutta) at 4-30 P.M. the same evening, when she anchored at No. 3 Prinsep's ghât moorings. The Surveyor to Lloyd's Agents proceeded on the morning of the 22nd and 23rd July, accompanied by a Marine Surveyor to the Lower Union dry dock, Howrah, in order to survey the bottom of the four-masted ship *Reliance,* and to report whether she had taken any hurt by grounding on the James and Mary's whilst proceeding up the Hooghly river with a cargo of salt. They reported that the vessel being placed on high blocks and the dock pumped dry, a minute examination was made of the bottom outside, and also the cement, floors, frames, stringers, and beams inside, in the fore and after holds; the cargo being left in the main hold to ballast the vessel they were unable to examine the cement or floors between the mainmast and the mizenmast. On the port side the butts of the strake of plating below the bilge strake, from the foremast as far aft as the mizenmast, also some of the butts of the strake of plating above the bilge strake in midships, and a few of the butts on the bow, indicated slight straining; the paint and putty in the butts being cracked, but could not detect any slack rivets. On the starboard side forward of the foremast two butts showed signs of straining; the paint on the bottom was badly chafed on the starboard side in midships, apparently by hawsers getting under the bottom; the paint on both bows was badly chafed by the chain cables; the paint under the flat of the

bottom was also rubbed off on the starboard side, and on the keel, and in places on the port side under the bottom; the rivets on the back frame of the rudder were all started and loose, and the rivets in the plate on the forward part broken; the cement inside was broken and started away from the iron in many places both forward and abaft the salt cargo, *viz.*, under the after hatchway and under No. 2 hatchway, but no slack rivets were found either through the bottom or in the floor plates; the rivets in the stringer plates and girders and in the beam ends were examined, but no injury detected anywhere; and the collision bulkhead forward was also examined with the same result. The salt cargo left in the ship for ballast being directly over the part where the most indication of straining outside was noticed, the Surveyors recommended that after the cement was repaired forward and aft, the salt be shifted, the main hold cleared, and the timbers cleaned for inspection of the cement and floors. They also advised that the rudder be lifted out of the gudgeons for inspection of the pintles; that the places in the bottom where the paint was chafed should be scraped clean to the bare iron and coated with an extra coat of paint; that the butts of the plates be puttied where required and the bottom coated as before with patent composition. When the salt in the main hold was shifted and the rudder lifted the Surveyors would make an examination of the cement and rudder pintles. On the 27th July the Surveyors again visited the vessel and after an examination found that the cement of the floor was broken and started away from the iron in places; in almost all the spaces between the floors on each side, from the mainmast to the mizenmast; and also started and broken in places on the blige, where a plank of the fixed ceiling had been removed. They advised that the loose and broken cement should be cut out and that two planks of the fixed ceiling on the bilges be removed for farther inspection of the bilge cement. That recommendation having been carried out, they again visited the ship on the morning of the 28th and tested the rivets where the cement had been removed, resulting in not being able to find any slack or defective rivets anywhere. They examined the cement on the bilges, where the ceiling planks had been removed, and found it started off the plates in many places and had it cut out, but found no slack rivets; the longitudinal stringers on both sides in the lower hold, also the centre keelson, and the 'tween deck beam ends and stringers were examined, but found no indication of straining or injury of any kind. The Surveyors were therefore of opinion that beyond starting the cement of the bottom the *Reliance* had stood the strain of grounding in a bad part of the river, with a full cargo of salt, without suffering any serious danger to the hull, and recommended that the parts where the cement had been cut out be re-cemented; the filling plates on the forward part of the rudder having been removed and the rudder lifted out of the gudgeons, the pintles were carefully examined and found intact; and the filling plates to be re-fastened and the rudder shipped; the slack rivets in the back part had been taken out and replaced with sound rivets. On the morning of the 30th the Surveyors finally visited the vessel for the purpose of ascertaining whether the repairs had been executed satisfactorily. They reported that the places where the cement had been cut out had been properly cemented again; the filling plates on the forward part of the rudder rivetted; and the rudder shipped in its place as before. They advised that the ceiling of the floors be re-laid, the salt put back in midships; and the vessel put out of dock. The bare parts of the bottom had been coated with an extra coat of paint, and the whole bottom up to the water line coated with patent composition as before; the gutterings on the upper deck had been scraped, examined, and re-coated with paint, and the decks caulked throughout; the forward part of the fore hold from the collision bulkhead to the foremast, which was scraped and cleaned for inspection and the sparring battens taken down, had been coated with paint, and the battens put up as before; the bridge steering gear, which was injured when the vessel grounded,

had been overhauled, repaired, and put in good working order; all the ropes and other gear lost and destroyed had been replaced with new. The Surveyors were of opinion that the *Reliance* was as staunch and strong as ever she was, and fit to carrry a dry and perishable cargo to any part of the globe, and was a first class insurance risk. Value of damage to the ship, ₹13,500; cargo, ₹4,000. No loss of life.

[A Departmental Committee of Inquiry was held in the office of the Port Officer, Calcutta, on the 6th June for the purpose of inquiring into the grounding of the above ship on three different occasions. The Committee after having read the order for the assembly of the Committee and the letters and reports attached to the case, proceeded to call and examine the witnesses. The Committee recorded that the master of the steamer *Court Hey* stated that he found the ship so heavy to turn that he considered the tug was insufficiently powerful to handle a ship of the size of the *Reliance* in the then state of the Eastern Gut. He cited in evidence the case of the ship *William D. Lawrence* of 2,459 tons, with a draught of 24′, which was as heavy a vessel as the *Reliance,* and had to be towed over wind and tide every day, thereby taking the *Court Hey* six days going down in March 1880. The *Reliance* was the heaviest ship he had ever towed, and being therefore a little above his steamer's towing capacity, he would have cancelled his agreement, had he the opportunity of doing so, in favour of the tug *Retriever,* had the latter vessel gone down in time the first day. His reason for so stating was because the *Clive* or the *Retriever* being so much more powerful were better able to handle the vessel. He further stated that with the increasing heavy tonnage visiting this port the existing steam-tugs ought to be fitted with more appliances, *viz.*, steam windlass and capstan to meet emergencies of this description, as it would have been most useful in the present instance. The master of the *Reliance* stated that on the 20th he arrived off Kedgeree, where not having a chance of engaging a steamer, he anchored. On the 22nd the master had a chance of the tug *Clive,* but did not engage her on the grounds that that steamer was asking a very high rate of fees. The pilot informed the master that he would require a first class steamer to tow the *Reliance* up, and notwithstanding this, the master on the following day engaged the *Challenge,* whereupon the pilot refused her and impressed on the master's mind that none but one of the screw boats would be required. Ultimately the master engaged the tug *Court Hey* for less money. This the master accounted by the pilot having given as his particular reason for not objecting to the *Court Hey,* that he wished to get across the James and Mary's before the tides made strong. The master's objection to taking two steam-boats in the Hooghly was on the score of expense, and had such a thing happened in the river Thames for instance, he said, that if he could not get a powerful tug he would take two. The Committee after having weighed all the evidence in this case, were of opinion that the grounding of the ship *Reliance* was caused by the steamer *Court Hey* not having sufficient power to recover the ship when that vessel took a sheer in crossing the James and Mary's, but did not attach any blame to either the pilot of the *Reliance* or the pilot of the tug. The Committee observed that as vessels of the class of the ship *Reliance* were becoming frequent visitors to the port of Calcutta, they desired to bring to the notice of the Port Officer the necessity for making a rule, for the guidance both of the masters of such ships and the pilots in charge. The Committee proposed that, failing the services of tugs of the description of the steam-ships *Clive* and *Retriever,* all vessels over 2,000 tons should be compelled to employ two ordinary tugs. The rates for such services might be settled by the owners or agents of the said tugs.]

The Port Officer recorded that the *Reliance,* which was 314′ long and one of the largest class of sailing vessels, was endeavouring to pass the James

and Mary's at the time the accident occurred. She was subsequently floated after having jettisoned a quantity of salt cargo and brought up to town (Calcutta) without any serious damage. The finding of the Committee was, that the casualty was due to the insufficient towing power of the steamer, and that no blame attached to the pilot, who, it seemed, warned the master that the tug power was inadequate, and requested him to employ one of the two first-class tugs. The Port Officer concurred in the finding. The Committee appended a recommendation, in which the Port Officer concurred, that vessels over 2,000 tons should be obliged to take two tugs—unless they engaged one of the two first class tugs—between Diamond harbour and Calcutta, and he proposed that the pilot should, in future, be required to take from the master a statement in writing that he was aware of the risk he incurred if he persisted in employing insufficient towing power. The Port Officer was not sure whether the ship had vitiated her insurance by refusing to comply with the pilot's request).

The Lieutenant-Governor of Bengal accepted the finding of the Committee, that the casualty was due to the insufficient towing power of the steam-tug, and that no blame was attached to the pilot. His Honour remarked that the recommendation of the Committee, that a rule should be framed compelling all vessels over 2,000 tons burthen to engage two ordinary tugs, unless the pilot obtained the services of the first class tugs, was inadvisable to frame a rule of the nature suggested.

138. The Siamese wooden barque SIAM [of Bankok, 295 tons register, no official number], from Calcutta to Bankok in ballast. On the morning of the 22nd April the barque under pilotage charge and in tow of the steamer *Pilot,* proceeded down the Hooghly river, and when at Diamond harbour, the master of the *Pilot* finding that it would get considerably late in reaching Dhámrá river, he cast the *Siam* off and proceeded on his voyage to Chándbali. Subsequently the pilot sailed the vessel up to Mud point and moored her safely with 30 fathoms each way, well out of the way of passing vessels. The master requested the pilot to sail out, whereupon the latter finding that he could not take the vessel to sea without the aid of a steamer, intimated his opinion to the master; who thereupon sent the first officer up to town to telegraph to the owner of the vessel at Bankok through the Siamese Consul in order to procure funds whereby the master might pay the hire of a steamer. In the interests of the vessel the master finding that the pilot's detention allowance was daily increasing, and that the barque's movements still remained undecided, permitted the pilot to leave the vessel on the 8th May. Early on the morning of the 25th of the same month, the tug *Columbus* left town (Calcutta) with water, provisions, passengers and heavy baggage, besides a pilot on board, and reached Mud point in the afternoon. At 4-20 P.M. the tug steamed alongside the barque in order to ship the pilot and provisions on board, but the engines not being stopped when ordered by the master, the *Columbus* shot further ahead than was intended, and in doing so came into collision with the *Siam,* the steamer's starboard anchor hooking the barque's port back rope, thus carrying away her jibboom, stays, cathead, whisker and all gear attached; also in dropping astern the tug's anchor grazed the *Siam's* copper right along the port side, ripping off several sheets, splitting bulwark planks and bending the channel plate of the maintopmast backstay: also carried away the after bumpkin and the iron stay attached. The master at the time of the accident was in charge of the barque, but after the collision the pilot boarded her and brought the vessel up to town at the request of the master for the purpose of survey and repairs. The master in consequence of shortness of funds only repaired the vessel temporarily to take her to her destination, leaving her to be surveyed and thoroughly repaired on her arrival at Bankok. Value of damage to the barque *Siam,* ₹1,680. No cargo on board. No loss of life. (The colli-

sion was due to the action of the tug in not having stopped when ordered to do so.)

139. The British iron paddle steamer COLUMBUS [of Calcutta, 97 tons register, official number 45431], was employed as a tug-steamer on the Hooghly river. On the early morning of the 25th May the steamer started from her moorings in the harbour, having on board a pilot, water, provisions, firewood, passengers and heavy baggage for the *Siam,* which vessel was lying anchored at Mud point for want of funds to engage the services of a tug-steamer. The *Columbus* arrived the same afternoon, and steamed alongside of the vessel for the purpose of putting the same on board. At 4-20 P.M. the master of the tug directed the engines to be stopped, but that order, owing to some mistake, was not carried out, consequently the *Columbus* shot further ahead than it was intended, when in doing so, the tug fouled the barque, and the starboard anchor hooked the latter vessel's port back rope and did considerable damage thus necessitating her return to port. The *Siam's* cathead caught the steamer's sponson house and broke it, also doing some slight damage to the paddle-box house, pantry, and starboard quarter boat. After the collision, in consequence of the rough sea, both vessels began rolling pretty heavily, and the steamer whilst getting alongside wrinkled a portion of the *Siam's* copper. Value of damage to the tug *Columbus,* ₹250. No loss of life. (The collision was due to the action of the tug in not having stopped when ordered todo so.)

140. The Native kotia PANKHIDO [of Sálaya, Káthiáwar, 40 tons register, official number 40], from Sálaya to Bombay, with a cargo of cotton and wool. On the 26th May the kotia was going towards Bet, and at 4-30 P.M., when the Island of Chakha came within sight, the tindal failed to steer her sufficiently seawards, and consequently she ran on the rock off the entrance to the Verangat creek (Gulf of Cutch). She was subsequently got off and repaired. Value of damage to the kotia, ₹1,500; cargo, worth ₹5,500, was lost; the remainder was saved.

141. See RELIANCE No. 137.

142. The British iron screw steamer THAMES [of Glasgow, 2,131 tons register, official number 85898], from Melbourne to London, with 100 passengers and a general cargo. On the 27th May the steamer left Colombo, and on the following day, when in latitude 7° 19′ N., longitude 76° 43′ E. (Indian ocean), she met with an accident, the high pressure piston having broken. The master immediately returned with the vessel to Colombo, with one engine, for repairs. The Australian mails were transferred at sea to the Messageries Maritimes Company's steamer *Yangtse* bound to Suez from China. A spare piston, which had been on board, was fitted, and after having completed all her repairs, she proceeded on her voyage again on the 5th June. Value of damage to the steamer, machinery, and cargo not reported. No loss of life.

143. The British iron paddle steamer INDORE [of Calcutta, 750 tons register, no official number], from Calcutta to Assam, with a general cargo. On the 27th May the steamer *Indore* was, in accordance with the Port Rules, dropping down the Hooghly river, with the flat *Serajganj* on the port side in tow, from abreast the Burma and Bombay Trading Company's ghât, and whilst doing so was keeping well to the Northward, allowing a free channel to the South. The *Indore* after passing the India General Steam Navigation Company's yard, and when in line with the Upper Bishops' College sand buoy, observed that the steamer *Sir John Lawrence* was going down with her staysails set, when suddenly about 200 yards ahead of the *Indore* she appeared to have ported her helm as if with the intention of passing the *Indore* to port. At 5-30 A.M., when between the India General Steam Navigation and the Peninsula and Oriental Steam Navigation Company's yards, the master, on finding that the *Indore* was going over the sands put the helm hard-a-starboard with the view of going more

over to the North side but the *Sir John Lawrence* persisted in going northward also, steering steadily for the bow of the *Indore,* whereupon the master of the latter vessel seeing that a collision was inevitable consequently had no alternative but to shift the helm and back full power, but without success, and the anchor being on the ground with a short scope, the *Sir John Lawrence* came into contact with the *Indore,* her starboard bow striking the latter's starboard bow, carrying away 4 tubular stanchions supporting the *Indore's* roof and upper deck, and the roof falling carried away and bent several stanchions, damaging the bulwarks, bending the upper deck about 9″ over to port. After the accident the master of the *Indore* veered away chain when the two vessels separated, after which she was brought up above Garden reach and in a line with the Upper Bishops' college sand buoy. The *Indore* at 1-20 P.M. the same day proceeded on her voyage. Value of damage to the steamer *Indore,* ₹1,500. No damage to the cargo. No loss of life. (The cause of this accident, as stated by the master of the *Sir John Lawrence,* was owing to his steering gear having got out of order, or rather it had become useless; admitting this, it was considered that there was ample time for the *Sir John Lawrence* to have stopped her engines and backed full speed astern in order to prevent it, instead of which she seemed to have had full way on her till she was within 10 yards of the *Indore.)*

144. The British iron paddle steamer SIR JOHN LAWRENCE [of Calcutta, 466 tons register, official number 52713], from Calcutta to Chándbali, with a general cargo and 525 passengers on board. On the 27th May the steamer in charge of the master (a licensed steam-tug pilot) was proceeding down the Hooghly river; at 5 A.M. the vessel's wheel chains got jammed in the leading block under the bridge with some deck passengers' clothes in it, whereupon the master immediately eased down and cleared the wheel chains. The steamer was proceeding down the river with engines going half-speed, when the master sighted the Inland steamer *Indore* dropping down with a flat in tow; he continued on his course, thinking that the *Indore* would steer clear of her. At 5-30 A.M. the master saw that the *Indore* was sheering out into the channel; whilst in mid-channel off Hastings' bridge, the tide being half-flood, the *Sir John Lawrence* put her helm hard-a-starboard, but the *Sir John Lawrence* came into collision with the *Indore,* the former vessel's starboard anchor caught the *Indore's* upper deck stanchions on the starboard side, dragging the starboard anchor away from the cathead; the starboard anchor in going back against the *Sir John Lawrence's* starboard bow dented a hole above the water's edge in one of the plates about 4″ in length. The master after the accident took the vessel down to Garden reach and anchored close to the River Steam Navigation Company's yard. At 4 P.M. the same day after the damage had been repaired it was examined by the Government Surveyor and a certificate granted, when an hour afterwards she weighed anchor and continued her voyage. The master of the *Sir John Lawrence* stated that if the Inland steamer *Indore* had gone over to the other side of the river, until the *Sir John Lawrence* had passed down, no collision would have occurred. Value of damage to the steamer *Sir John Lawrence,* ₹200. No loss of cargo. No loss of life.

145. The British iron ship UDSTON [of Glasgow, 1,695 tons register, official number 68082], from London to Calcutta, with a general cargo. On the 20th May the ship in charge of a pilot and in tow of the steam-tug *Hunsdon* was proceeding up the Hooghly river, and at 5-20 P.M. whilst turning round to anchor off Fisherman's point, grounded on the flat a little above the Upper Fulta mark. The vessel having been aground for 8 days, *viz.,* from the 20th to 28th, during which time several attempts were made to get her off by heaving heavy strains on anchors laid out, and by towing, she had on one occasion floated, but before she could be got into deep water, swung round and her stern took the bank again. On the 28th the *Udston* having discharged altogether

500 tons of her cargo, floated off with the assistance of the steam-tug *Court Hey*. The anchors and chains were subsequently weighed and returned to the vessel, the cost due for salvage being R644. No damage to the *Udston* or her cargo. No loss of life. (Tne casualty was accidental.)

(For a farther account of this accident see Casualties No. 136.)

146. The British iron screw steamer *Willingale* [of London, 1,312 tons register, official number 89515], from Cocanada to Boston *vid* Madras, with a cargo of jaggery and castor-oil seeds. On the 27th May the steamer was proceeding down the Coromandel coast, and all went well with the vessel up to the 28th. At 11 o'clock that night the course steered by the standard compass was S.-E.½ S., the lead was hove a few minutes before 11 P.M., and the depth found to be 7 fathoms. The steamer appeared to have been nominally in charge of the first officer, as the master was ill in bed. At that time it was the second officer's watch, and he was on the bridge, and the Armogham light was visible throughout the night. The night was fine and clear, but a little hazy towards the horizon, and the wind light from S.-W. The third officer in his hurry taking a cast of the lead in the dark must have mistaken the marks on the lead line, and 5 fathoms, instead of 7 fathoms, would probably have been the right sounding, and the water having rapidly shoaled, she took the ground on the northern edge of the Armogham shoals in latitude 13° 56′ N., longitude 80° 17′ E. (Coromandel coast). When the master came on deck he immediately ordered the engines full speed astern, and she came off within three-quarters of an hour, but owing to the engines being worked only half-speed in consequence of the tubes of the condenser being choked with sand she took the ground again. After several attempts to steer her off the shore with the aid of sails, the engines going astern slowly, she successfully floated off at high-water early on the following day without assistance. After steaming off the shoal the steamer arrived in Madras harbour the same evening. On the next morning she was surveyed by the Surveyor to the port, assisted by a master of a steam-ship, and the bottom was inspected by the Government divers. The Surveyors reported that they examined the hull afloat as far as it was possible to do so, but could detect no signs of damage anywhere. On going on board they sounded all the tanks and holds, and after an interval of an hour and a half sounded again, but found no alteration in the quantities noted. As the steamer showed no signs of having strained anywhere as far as they were able to judge—the vessel being afloat and having a full cargo on board—and as the divers discovered no damage in her bottom, the Surveyors were of opinion that she was still staunch and strong, and fit and capable of continuing on her voyage. The steamer was aground for 5 hours. No damage to the *Willingale*. No loss of cargo. No loss of life. (The casualty was attributed to the neglect on the part of the third officer in not paying better attention to the soundings. No Court of Inquiry was held at Madras, as the vessel received no damage whatever, and being fully laden it was not considered expedient to detain her for the purpose of an investigation which would therefore lead to unnecessary expenses. She left Madras that same day with everything in first rate order and 20 days afterwards was lost 4 miles to the northward of Ras Shenarief on the N.-E. coast of Africa.)

(For detailed particulars see Wrecks No. 42).

147. The French iron screw steamer ROUEN [of Havre, 2,670 tons register, official number not reported], from Toulon to Saigon and Tonquin, with troops and 90 horses on board. On the 31st May a fresh breeze sprang up, accompanied with blinding flashes of lightning, and soon after hot blasts of wind came from all points of the compass, with showers of rain. At 8 o'clock that night a strong swell from the eastward set in, followed by a heavy deluge of rain. At half past 9 P.M. a terrific squall struck the steamer from the N.N.-E., blowing a furious cyclone, pouring with rain and with most vivid flashes of

lightning, the sea seemed to come from all quarters flying over the vessel obscuring all objects. At 11 P.M. the vessel became quite unmanageable, the helm was put hard-a-starboard and the engines slowed, but the tremendous East sea prevented her from heading to the northward. At midnight wind N.-E. by N., blowing a perfect cyclone, a frightful sea struck the steamer, burying her so completely that for some minutes it was impossible to tell whether she was going down or not, but after the sea cleared away some idea of the damage could be formed. When she was struck by this heavy sea 20 miles North of Sokotra island (Arabian sea) the decks swept and various damage done to the boats, sails, &c., and 84 horses out of 90 were lost. The chief engineer reported water over the engine-room floor, and the stokehole plates being washed up, were washing about the stokehole, which the firemen had deserted; and the bilges full of water and coals, and all the pumps choked and the fires extinguished. Everything that could be done to stop water going below was done. At 1 A.M. the cyclone moderating, wind E. by S., when at 3 A.M. wind S.-E. moderating very fast, but the sea still bad, the carpenter sounded the holds and found 3′ of water; the crew rigged the deck pumps, but the sea soon disabled them. At 8 A.M. on the 1st June moderate winds, sea going down fast, all hands who were not disabled cleared away the wreck, when the engines were set agoing slow. At noon moderate breeze and clear weather; sea going down. The steamer put into Colombo on the 8th, where after coaling she left again the next day without having been repaired. Value of damage to the steamer, machinery, and cargo not reported. No loss of life.

148. The British iron screw steamer CITY OF MANCHESTER [of Glasgow, 2,046 tons register, official number 68050], from Liverpool to Calcutta, with a general cargo, was overtaken by a cyclone off Sokotra island in the Arabian sea on the night of the 31st May. The following particulars have been gathered from the steamer's log-book:—At 1 A.M. on the 29th of that same month there was a fresh easterly breeze and fine clear weather, the steamer going 11 knots an hour on a S. 45° E. course. At 7-25 A.M., barometer 29·92, the master sighted Cape Aden, bearing abeam at a distance of 22 miles. Noon, the weather very fine with moderate head winds, latitude, by account, 12° 19′ N., longitude 45° 56′ E., the distance run 256 miles. At PI .M. the course was N 88° E. and weather fine with light winds from N.-E. to S.-E. At 3 P.M. light variable airs continuing throughout and the sea very smooth. Midnight, the weather was completely calm with cloudless sky. On the 30th at 1 A.M. steered on the same course, going 11 knots, the weather calm, and the sky cloudless. At sunrise misty towards the horizon and the aneroid had fallen to 29·84. Noon, the weather was calm, sky overcast, and sea very smooth; the vessel's position by account was latitude 12° 52′ N., longitude 50° 27′ E., and the course steered N 84° E., distance run 268 miles. At 1 P.M. the course was changed to S 88° E., the steamer travelling at the rate of 11 knots, the wind from S.-E. At 3 P.M. the weather was calm with variable airs from all quarters, the sky partially overcast, and the sea dead smooth. At 10 P.M. there was a swell rising from the eastward. Midnight, gloomy looking weather, with frequent lightning from the S.-E. On the 31st 1 A.M., the vessel steered the same course, going 11 knots, the wind variable, and the weather continued gloomy. At 2 A.M. sighted Sokotra island, which bore S $\frac{1}{4}$ E. At 5 A.M., the wind was from N.-E. At 6 A.M. the master set course to S 76° E after sighting White Patch 4 points on the starboard bow. At 8-15 A.M. the aneroid had fallen to 29·82, the White Patch abeam distant 22 miles. At that time the weather was squally from the N.-E. with heavy rain. Noon, the position of the steamer by account was 12° 52′ N. latitude, and 54° 47′ E. longitude, the course was changed to S 89° E., and the distance run was 256 miles; the barometer 29·70. There was a heavy

gloomy looking sky and the weather still squally with rain at intervals, and the sea very turbulent and confused. At 12-30 P.M. heavy squalls with rain. At 2 P.M. the course was altered to S 76° E., going 11 knots per hour; at that time it was blowing a fresh gale and the sea became very rough. Sunset, the wind suddenly increased to a tremendous hurricane from the E.-N.-E., when the engines had to be put dead slow proceeding 7 knots, and the course steered East. At 8-30 P.M. the gale blowing with hurricane force from N.-E., and the vessel steered to E.-S.-E., travelling at the rate of 2 knots per hour; a tremendous high confused sea running; the steamer shipped enormous bodies of water from all sides, the seas going right over the fiddleys and engine-room; a large quantity of water accumulated in the stokeholes, so that the crew had the greatest difficulty in keeping the fires alight. About an hour afterwards the cyclone was at its maximum; a tremendous sea struck the vessel on the port beam, unshipping three boats out of their chocks and breaking them to pieces, the after part of the saloon skylight was smashed in and the cabins filled with water, when two sails were immediately got up and the place secured with great difficulty, as the men were nearly washed overboard by the seas; the deck furniture was nearly all smashed, and one of the sheep-pens and hen-coops washed right overboard, carrying away the steam-pipes to winches forward and the water-pipes with it; part of rails knocked away forward; the binnacle and stand aft and the binnacle on the bridge washed away. At 9-30 P.M. the vessel was kept E. by N., going 2 knots through the water, and the wind blowing in fury from N.-E. by E. The master and third officer were knocked down and nearly washed overboard; the master's head was knocked through the skylight on the bridge, when his face and hands were badly cut and his body bruised; the third officer got jammed under the starboard life-boat, and was with difficulty extricated. The wheel-house doors on the upper bridge were also knocked in, and two of the quartermasters were severely hurt by splinters and broken glass; several of the crew and firemen were also much bruised and cut. Luckily there was only one passenger on board who, when washed out of his bunk, turned to to assist the stewards to keep out the sea. At 11 P.M. the wind suddenly lulled entirely, and for half an hour was almost calm. At 11-30 P.M. the wind sprung up again with fearful force from S.-E., and which continued for 37 hours. Midnight, the barometer 28·50, the wind still the same with much rain, and the sea completely submerging the steamer fore and aft. At 1 A.M. on the 1st June the vessel was kept to the E.-S.-E. as long as practicable, as the hurricane was from S.-E., South and S.-S.-W. At 2 A.M. the wind hauled to South and again to West, when the vessel's head was put to South with the engines going at a moderate speed. At day-break the gale continuing from the S.-W., the course was changed to S. by W. $\frac{1}{2}$ W. At 6 A.M. squalls less frequent and steamer making better weather. At 6-30 A.M. the barometer rose rapidly to 29·70; the crew secured the saloon skylight again. Noon, the gale continuing strong with high sea and the weather gloomy and overcast no observations were obtainable, but the vessel was then in latitude by account 12° 08′ N., longitude 55° 30′ E., the course steered S 49° E., distance run 56 miles. At 1 P.M., the wind being from S.-W. the course was altered to S. by W.$\frac{1}{4}$ W., travelling 3 knots an hour. At 4 P.M wind decreasing in strength and the sea moderating, but the weather still overcast and cloudy. Sunset, the weather clearing up a little and sea going down At 8 P.M. wind from S.-S.-W. with a moderate gale and the sky clearing overhead. Midnight, the master began to steer to the southward and westward, and the wind moderated. At 5 A.M. on the 2nd aneroid rose to 29·88, the wind blowing a fresh breeze, the master bore away and set course East by magnetic compass, and at the same time set on the engines full speed. There was no survey held at Calcutta to ascertain the damage done to the hull and

fittings; but the estimated cost was ₹3,000; value of the cargo damaged ₹10,000. No loss of life.

JUNE.

149. The French iron screw steamer HAVRE [of Havre, 2,662 tons register, official number not reported], from Pondicherry to Marseilles, with a cargo of sesame. The steamer on the 1st June, when off Sokotra island in the Arabian sea, encountered a cyclone and was driven to southward. She sustained some injury to her boilers which reduced the speed of the vessel to 5 knots an hour, and was obliged to put into Mahé, Seychelles, for the purpose of coaling. The vessel after filling up her coals resumed the voyage, arriving at Aden on the 27th June. She experienced fine weather after leaving Mahé with the exception of a day or two when the wind having freshened to a strong head gale she laboured heavily shipping large quantities of water. During the time she was at Aden, the hatches were examined and the cargo was found to be in good condition. On the 8th July after repairing her boilers she left for Suez, where she was ordered by the Surveyors to change the tubes. Value of damage to the *Havre* not reported. No loss of cargo. Value of damage to the machinery not reported. No loss of life. (Beyond the above information, which was extracted from the newspapers, no particulars have reached this Department.)

150. The British iron screw steamer DIOMED [of Liverpool, 1,470 tons register, official number 60046], from Liverpool to Hong-Kong, with a general cargo, encountered a cyclone 4 miles North of Cape Guardafui, N.E. coast of Africa. The following is from the report of the master:—1st June,—noon, position of the steamer, latitude 12° 39′ N., longitude 50° 30′. E., barometer 29·90, the weather fine and clear with heavy head swell. At 8 P.M. a heavy squall from the E.-N.-E. with rain. At 10 P.M. aneroid falling, the gale suddenly burst strong from the same quarter and the sea rapidly increased in force, ordered the engines to be slowed to 45 revolutions and the steamer's head put to the N.-E. At 11-30 P.M. the position of vessel latitude 11° 50′ N., longitude 51° 20′ E., barometer 29·05, the wind backing from E.-N.-E. to W.-N.-W., raging with hurricane force, the after steering gear and tiller was found broken, when the master set the mainstaysail to assist in keeping the vessel to the wind, but it had not the desired effect as it was blown to pieces; the steamer fell off and the heavy seas completely swept her decks, washing away two boats and carrying away all moveable articles, the master ordered the engines to go ahead as slow as possible. On the 2nd, 1 A.M., the wind still blowing a terrific hurricane with tremendous sea, the crew tried to secure the rudder to mooring bitts with chains, when the chains and the bitts parted. At 10 A.M. the engines had to be stopped in order to clear the bilge pumps in the engine-room, which were choked. Noon, the wind moderating, the crew got the tiller temporarily lashed on the rudder head and had it secured by the bridge wheel-chains and relieving tackles. At 8 P.M. the barometer rose slowly, and the wind moderated. The crew got a spare anchor stock and lashed it to the rudder head with chains, by which means the vessel was enabled to steer back to Aden. On the 3rd, 10-30 A.M., barometer 29·50, the wind variable but moderating and the sea confused; the engines being ready, the master thought it prudent to steer for Aden. At 5 A.M. the next morning the *Diomed* on her way to Aden picked up off rafts 32 men, who proved to be the master, a portion of the crew and passengers of the Turkish ship *Fattel Barry,* which vessel had foundered in the same cyclone. At 8-30 A.M. the *Diomed* proceeded into Aden harbour to repair damage and get fuel. Value of damage to the steamer, cargo, and machinery not reported. No loss of life.

151. The British iron screw steamer MARTABAN [of Glasgow, 1,630 tons register, official number 68066], from Glasgow to Rangoon, with a general cargo. On the evening of the 1st June the weather was very dull and sultry, and the sky overcast with heavy banks of haze over the horizon between the S.-E. and N.-E.; there was a light East wind with a long swell setting in from the same quarter. At 4 A.M. on the 2nd the wind began to freshen from the South, gradually veering to the S.-E. and East. At 6 A.M. the wind shifted round between East and North, the sea increased, and torrents of rain fell. At 8 A.M. the wind blowing in terrific gusts accompanied with fierce rain-squalls and high mountainous sea, the engines were eased to half-speed and the vessel hove-to on the port tack; the aneroid having fallen, the hatches were battened, awnings furled and everything secured about the deck in preparation for a blow. At 10 A.M. the gale with a tremendous sea came from the East, the waves dashing on board fore and aft and breaking adrift the deck fittings, the after steering gear box stove in; the port boat washed away, the port quarter boat's davits broken and destroyed, &c. At noon, when in latitude 13° 06′ N., longitude 50° 02′ E., the storm was at its maximum, the centre would seem to have passed her position at this time, the wind East to N.-E., blowing in fitful gusts, veering round to North and West; the sea most fearful, and breaking on board fore and aft and doing serious damage to life and property. At 1 P.M. there was a sudden calm for an hour; the barometer fell to 28·60. At 2 P.M. violent gusts of wind with terrific seas from the W.-S.-W., and the master fearing that the heavy seas abeam would sweep the decks, he ordered the engines ahead half-speed and put the vessel's head to W.-N.-W. At 6 P.M., the squalls were as violent as ever, the heavy seas stove in the front of the after deck-house and broke the wheel-house and stern wheel, breaking away the chocks of the life-boats, completely smashing up the starboard quarter boat and carrying them and their davits away, also carrying away everything moveable on deck; the whole of the crew were more or less injured and bruised; a 200-gallon water tank was wrenched from its fastenings, and at one time threatened to cause serious havoc; but fortunately it was secured after considerable trouble; the saloon and forecastle were flooded and altogether the steamer was in great difficulties. This continued till 10 P.M., when a break in the weather was observable and the barometer began to rise. At midnight an attempt was made to turn the vessel to the S.-E., but it failed on account of the heavy sea. The barometer then rose rapidly and the wind moderated. The pumps had to be kept working for some time to clear the steamer of water. At 2 A.M. on the 3rd the master set his course to pass to the northward of the Sokotra island. There was no survey held at Rangoon, but the steamer was docked and repaired on her arrival at home. Value of damage to the *Martaban*, £350. No loss of cargo. No loss of life.

152. The British iron screw steamer KAISAR-I-HIND [of Greenock, 2,400 tons register, official number 76182,], from London to Calcutta, with a general cargo. On the 2nd June, at 10 A.M., the steamer left Aden and ran into the tail of a cyclone about 12 hours afterwards, and experienced very bad weather for nearly 7 hours. On the morning of the same day the weather was dull and the sky overcast, and there was a light easterly wind with a long swell setting in from the same quarter. At 11-40 P.M., the wind and sea increased and torrents of rain fell, when the engines were eased to half-speed. At midnight the sea was running so high that the vessel's speed had to be eased down to dead slow. At that time the steamer, whilst in the Gulf of Aden in latitude 13° 16′ N., longitude 47° 17′ E., 120 miles E. by N., of Aden, experienced a heavy gale from the E.-N.-E., veering to E. by S., accompanied with fierce rain-squalls, high sea, much lightning and an ugly threatening appearance all round; the barometer fell from 29·80 at 8 P.M. to 29·64 at 1 A.M. the next morning. At 1-50 o'clock on the morning of the 3rd a tremendous sea suddenly came up from the E.-S.-E., and the vessel

commenced labouring excessively, shipping large quantities of water, and lost one or two boats, also frequently dipping her stern under and flooding out the after deck passenger cabins. The engines were eased to slow, and the vessel was kept head to sea till daybreak, when the cyclone moderated, the aneroid then stood at 29·72, after which the steamer was put full speed on her course. The *Kaisar-i-Hind* was evidently in the right hand semicircle of a cyclone travelling to the westward, and this so far up the Gulf of Aden was of rare occurrence. The weather during the remainder of the voyage—both before and after meeting the cyclone—was exceptionally good, though the heat was very great for two days in the Red sea, and again at Aden. There were no signs of the monsoon weather beyond a few clouds, a thunderstorm on the night of the 31st May, and a rolling swell. The *Kaisar-i-Hind* was fitted in England to carry troops, and between 800 and 1,000 men were to have come out in her that voyage, but the orders for their despatch were countermanded a few days before she left London. Value of damage to the vessel not reported. No damage to the cargo. No loss of life.

153. The Maldivian hodi FATHOOL MUNEER [of Suadiva Atoll, 20 tons register, official number not reported], from Suadiva Atoll to Tuticorin, with a cargo of grass mats. On the 2nd June, at midnight, the hodi, when in the Gulf of Manár, met with stormy weather with very rough seas, and could make no headway; the mast fell, the sails were carried away, and a canoe smashed; and she was driven out of her course in consequence. She began drifting with the strong winds, and on the 16th June she arrived at Pámban. Value of damage to the hodi, R200. No loss of cargo. No loss of life.

154. The British iron screw steamer LIGURIA [of Liverpool, 2,980 tons register, official number 69367], from Liverpool to Australia, with a general cargo. There appeared, without doubt, to have been two distinct cyclones in the early part of June—the one about the 1st to the 3rd occurred in the Gulf of Aden, the other from 9th to the 12th not very distant from Bombay, probably about 300 miles off; but it was the former of those that was of such great intensity. The year will be remembered as a fatal one in connexion with the Gulf of Aden shipwrecks. The steamer left Aden at 8 A.M. on the 2nd June, the weather then being dull and the sky overcast, and there was a light easterly wind with a long swell setting in from the same quarter. At 11-40 A.M. the aneroid had fallen to 29·50; when 150 miles E. by N. of Aden a strong gale with a tremendous sea burst from the E.-N.-E., veering to E. by S., accompanied with fierce rain squalls, and much lightning. The cyclone lasted only for 3½ hours, but it was exceedingly violent, as during that time five boats were carried away, breaking the strong iron davits to which they were attached, and damaging a portion of the rails and bulwarks. As the *Liguria* was proceeding to Australia direct, her course was much to the southward of the *Kaisar-i-Hind,* which vessel was on her way to Bombay; she experienced much more terrible weather than the *Kaisar-i-Hind,* which vessel was only on the northern edge of the cyclone. It was understood that the *Liguria* had a large number of passengers, regarding whose fate some anxiety was at one time felt, but she subsequently arrived safely at her destination. Value of damage to the steamer not reported. No loss of cargo. No loss of life.

155. The British wooden barque ONWARD [of Banff, 559 tons register, official number 69435], was chartered at Calcutta in February for a round voyage to carry a cargo of rice for Aden and Jiddah, and to bring from the latter port a cargo of salt. After performing the voyage to Aden and Jiddah, and delivering her rice cargo, she was loaded at Jiddah with a cargo of salt, and left for Calcutta on the 3rd May. She proceeded on her voyage without anything of importance occurring until the 2nd June, the vessel then being in the Gulf of Aden in

latitude 13° 05′ N., longitude 48° 48′ E., when she experienced light baffling airs with S.-E. swell. At 8 P.M. there was a gentle breeze from E.-N.-E. which lasted up to midnight, with heavy banks hanging about the S.-E. quarter, accompanied with thunder and lightning and sprinkling of rain at times. From midnight to 5 o'clock on the morning of the next day (the 3rd) there were baffling catspaws and no steerage way, with high swell rolling up from E.-N.-E. and increasing rapidly, and the barque rolling heavily. From 5 A.M. to 8 A.M. the weather was inclined to be squally with rain, and every appearance of more wind, so they took in the small sails and wore the vessel to westward, the breeze increasing and working to northward. At half past 10 A.M. the wind increased and the sea rose rapidly. All hands were then called; they reefed and furled the topsails and foresail, and took in all sail to lower topsails, mizentopmast and foretopmast staysails; the wind and sea increased towards noon, and the crew secured everything about the deck in preparation for a blow. At noon the crew were still on deck as the wind had increased to hurricane force and the sea became confused and heavy; no observation could be taken that day. An hour afterwards the wind was blowing a perfect hurricane, with mountainous sea running and the barometer falling rapidly; the lower foretopsail and the maintopmast staysail were carried clean away from the ropes, so the crew bent the best maintopmast staysail and set it. At 2-30 o'clock that afternoon the cyclone was at its maximum and the lower maintopsail and the mizen staysail were blown away, also the new maintopmast staysail, which was blown completely away from the hanks, when the crew bent the best lower maintopsail and secured it and all the other sails to the yards with double gaskets. At 4 P.M. the wind still raging with hurricane strength and the sea rising, the barque laboured heavily and continually filled the decks fore and aft. The crew, who were still on deck, began rescuing all moveable furniture and lashing as well as possible everything about the decks which was likely to get adrift. No sail could withstand the force of the cyclone, so a weather cloth was put in the mizen rigging; the storm increased with intense darkness, and the barometer was down to 29·40, and falling rapidly. At 6 P.M. the wind the same but veering to easterly, the vessel was completely buried in the sea, which washed away all moveable articles from the lashings and placed the masts in great danger. At 7 o'clock that evening the fore and main topgallantmasts were carried away with the yards and sails attached; the binnacle light was also washed out by the sea, and the cabin doors and the skylight stove in, allowing large quantities of water freely into the cabins, which were subsequently secured as well as possible under the circumstances; the barometer was at 28·50, and still continued to fall rapidly. At 8 P.M. the cyclone was terrific, the sea was rising up in mountains, and the darkness intense; there being incessant, heavy rain and vivid lightning, rendering it impossible for the people to see the nearest object or hear each other speak. The master then mustered aft what portion of the crew he could collect, and those who were forward remained there on account of the wind and sea, which rendered any attempt to get on deck dangerous to life. The wind at that time veered to the East, the barque's head being to the southward was labouring heavily, the barometer being at 28·30 and inclined to hang. At 9 P.M. the wind was about S.-S.-E., and an hour afterwards it veered to South, the barometer varying from 28·30 to 28·40. At 11 P.M. the barometer was at 28·30, the wind and sea being terrific, and the hurricane still apparently at its highest pitch. At midnight the barometer rose to 28·50, the *Onward* labouring heavily in the mountainous sea, and being completely buried in it, when the master after consultation with his officers and crew came to the conclusion that to save the vessel it would be necessary to throw part of the cargo overboard, whereupon the master set a portion of the crew who were aft to work.

They commenced throwing the salt overboard, passing it from the after hold up through the cabin scuttle and out of the companion way in buckets; this the crew continued for an hour and a half, when they were obliged to leave off owing to the seas getting into the cabin—having jettisoned in all about 10 tons. At 2 A.M. on the 4th the barometer rose to 29·00, and the wind moderating, the master tried at great risk to pump the vessel, but found it impossible to do so as the sea was making a clean breach over the pumps, and the hands were washed to leeward and had a very narrow escape of going overboard. Half an hour afterwards the wreckage and broken spars were audible at times thumping against the vessel's side, but nothing could be done to cut it away owing to the heavy seas which were constantly sweeping the decks. At 4 o'clock in the morning the wind moderated, the barometer (29·30) was slowly rising, and the intense darkness commenced to lift. Half past 4 A.M., the barometer 29·50 and the wind and sea going down; the crew then found the foretopmast had gone and the lower topsail yard was broken in two and hanging by the gear attached and swinging heavily about the upper foretopsail yard, and the foreyard was hanging up and down the mast, the starboard yard arm being wedged between the topmast backstays, the topgallant yard and wreckage were also swinging about and doing great damage to the gear which was left standing; the boats were broken, and considerable damage done to the hull. On the mainmast the master found the upper topsail yard cockbilled, the lower topsail yard seriously sprung, the cross-trees and wreckage swinging about in a frightful manner, and all sails bent completely blown out of the gaskets, leaving nothing but the ropes. At 6 A.M. the crew commenced to clear and cut away the wreckage alongside in order to save the barque's side being stove in; the vessel was rolling and shipping large quantities of water fore and aft, and the forward house and galley entirely gutted. Towards noon of the 4th the master tried to secure the maintopsail yard, but found it impossible for the crew to hang on in consequence of the heavy sea; he thereupon set all hands to the pumps as there were 3′ of water in the well. At noon the barometer rose rapidly to 29·60, and the wind and sea moderated. From that time to 4 P.M. the wind moderated gradually, and the sea going down the men were employed sending down what wreckage it was possible to get down, and the pumps had to be kept working till 6-30 P.M. to clear the vessel of water, but the crew being exhausted, rested for a time. At daylight of the 5th the barometer had risen to 30·00, the master tried to set canvas, but to no effect, as the barque was an entire wreck aloft. At 8 P.M. the crew, after great difficulties, got the foresail and jib set and wore vessel to southward, standing off the Arabian coast. At 6 A.M. the master tacked to the East, having light winds and smooth sea, and the men resumed pumping, as there was still 2′ of water in the well, and the salt draining considerably. At 10 A.M. she sighted the steam-ship *Wolverston* coming up astern and bound eastward; the starboard boat was lowered and the men boarded her for the purpose of getting some provisions, stating that the *Onward* was in a disabled state and anticipated a long passage, and returned with only 1½ cwts. biscuits and 4lb of tobacco. At noon observations were taken and the barque's position determined to be in latitude 12° 40′ N., longitude 47° 20′ E. It was observed that the vessel had been set to the westward about 90 miles during her disabled state, and no observations were possible during the days the cyclone lasted. The *Onward* then proceeded on her voyage, making much more water than before, and the salt was coming up the pumps. On the 11th, when in the Arabian sea, she encountered a moderately strong breeze with a high cross sea, the vessel rolling heavily and shipping large quantities of water over all, and this continued till the 17th June, after which there was moderate weather. She proceeded on her voyage to Calcutta and arrived there on the 2nd July, where the master noted protest and called a survey on the vessel. On

the mornings of the 13th, 23rd, and 27th of that same month Lloyds' Surveyor, accompanied by the Surveyor to Local Underwriters, proceeded on board the barque *Onward* lying in the Caledonia dry dock, Howrah, in order to make a survey on the bottom of that vessel, she having, when on her passage from Jiddah to Calcutta, lost masts, sails, &c., and sprung a leak in the Gulf of Aden. After a careful examination of the bottom, they reported that the metal sheathing was very badly wrinkled on both sides from the fore part of the fore rigging to abaft the main rigging and as far down as the bilges. On the starboard side from the fore rigging to abaft the main rigging, and especially between the main and mizen rigging, the metal was much scored, cut and injured, apparently by the wreckage of spars knocking and chafing against it; the metal on the after part of the rudder was also chafed and torn off apparently by the floating wreckage; the rudder braces were resting hard on the gudgeons. The Surveyors had several sheets of metal taken off the bottom in six places on each side to try the caulking and found it very slack. They advised that the metal sheathing be stripped off and the seams of the bottom well horsed and caulked with good oakum; the rudder to be unshipped and the dumb cleats raised or lined to keep the braces clear of the gudgeons, the braces and pintles examined, and the head band and rudder trunk repaired and the rudder and steering gear put in good working order. The two main hatch hold beams and the mainmast partner beams, also the partner beams of the foremast, and the lower hold riders attached to them, indicated straining and working; the throat bolts and the two bolts below the throat bolts being slack and the riders started away from the side at the upper ends. The hold beam carlings of the foremast and mainmast partners, where the masts were wedged and the wooden knees supporting them, were started; the upper ends of many of the hold stanchions had worked nearly off the beams and five of them were broken. The Surveyors recommended that in addition to the repairs mentioned above certain repairs should be done in the hold in order to make the vessel as staunch and strong as she was before the cyclone, which were executed as detailed below. They eventually visited the vessel on the 10th December for the purpose of surveying her finally, and ascertaining whether the repairs and works renewed had been executed and completed satisfactorily and her equipments put in thorough good order and condition. They reported that the vessel was placed on high blocks in dry dock and the metal sheathing stripped off her bottom; the seams well horsed and thoroughly caulked from keel to gunwale and the bottom re-metalled over felt as before; the decks, the waterways, and stanchions thoroughly caulked; the rudder unhung, the dumb cleat lined, and a new yellow metal upper brace and new iron deck band fitted; 8 iron diagonal straps on each side fitted in the lower hold extending from the hold beam down to floor ends bolted through the bottom; throat bolts of the old hold riders taken out and replaced with larger bolts; 6 upper deck beam hanging knees taken down and converted into staple knees to take the hold beams and bolted through the sides; 2 new iron hanging knees fitted on the beam under the windlass; a new breast hook; the mast partners refastened and straightened with iron plates; 5 new hold stanchions and others repaired; a new step for heel of mainmast; new main rail on each side from poop to forecastle; new quick work stanchions, rails, and covering boards, on each side round the raised quarter deck; new beam and covering board on front of raised quarter deck; the front taken down and the cant piece across the deck bolted, the deck caulked underneath and the old cant piece re-bolted and new stanchion planking and mouldings fitted; the front beam fastened with new iron knees bolted through the sides; new hanging knees on the beams of the raised quarter deck bolted through the sides; outside planking of raised quarter deck and stern planking extra bolted and new planks where required; new quarter piece front of cabin-house fitted with iron knees at the sides; the steering gear

repaired as follows: spindle straightened; new wheel barrel fitted and the steering gear and blocks put in good working order; the forward and after ends of cabin-house repaired; the cabin skylight and doors repaired; new mooring chocks fitted; new mooring pipes and flanges fitted; the bulwarks repaired and refastened; the crew's house on deck refastened and the inside fittings of the bunks, &c., repaired and the outside pannelling and moulding entirely renewed; two new boat skids with chocks complete; three new boats; a part of the covering board and quick work on forecastle head renewed and two new catheads fitted; new fore and main channel bands fitted; and the binnacle repaired and new lamps fitted. New pitch pine foretop and topgallant masts; upper and lower topsail, topgallant and royal yards; the above were fitted with new tressle-trees, cross-trees, outriggers, rolling chocks and all iron work complete, and the futtock shrouds and chain plates for backstays repaired and renewed as required; new pitch pine maintopgallantmast, and upper and lower topsail, topgallant and royal yards with all fittings complete, also new outriggers; a new fore yard with old bands fitted; a new mizen gaff. The fore and main lower rigging and dead eyes condemned and new rigging and dead eyes fitted and set up with new lanyards; the maintopmast and topgallant backstays were new; the foretopgallant backstays new; the head gear all new; all stays new, except the foretopmaststay and the main and mizen topmaststays; new lanyards fitted to mizen rigging; an entire new set of sails and new poop and quarter deck awnings, boats' sails and covers; hatch, tarpaulins, and skylight covers; running gear and blocks renewed and repaired as required. The Surveyors were of opinion that all the repairs when the vessel was in dock had been well and faithfully executed, and the barque and her equipments put in thorough good order and condition. The *Onward* was tight and as strong and staunch as ever she was, and was fit to carry a dry and perishable cargo to any part of the globe, and was in their opinion a first class insurance risk. Value of damage to barque *Onward,* ₹32,314; cargo, ₹1,346. No loss of life.

156. The British iron screw steamer ANTENOR [of Liverpool, 1,645 tons register, official number 65910], from Liverpool to Hong-Kong, with a general cargo. On the 3rd June a very violent hurricane occurred in the Gulf of Aden such as had not been known within the memory of any one. The steamer on the morning of that day, when off Rás Howhr (South coast of Arabia), experienced a heavy cyclone, and had the front of forward house stove in, losing a man, and a life-boat went overboard. Value of damage to the steamer and cargo not reported. One life lost. (No official report of the casualty had reached this Department, nor could any information be obtained; the above details are from private sources.)

157. The British iron screw steamer NEWCOMEN [of Greenock, 1,388 tons register, official number 87376], from Kurachee to Malta and London, with a general cargo. The steamer on the morning of the 3rd June, when in the Gulf of Aden (exact position not given), experienced a terrific cyclone, doing damage to some serious extent to the rails, the bulwarks, &c., and the cargo also shifted. In approaching the harbour of Perim on the afternoon of the same day for the purpose of coaling, her steam-steering gear got out of order, but she arrived safely at the anchorage, and the defects were put to rights. No survey was asked for by the master, nor were any repairs executed, although a considerable part of the rail was washed away, the cargo shifted, and other serious damage sustained. The *Newcomen* after filling up her coals proceeded on her voyage the next day. Value of damage to the steamer and cargo not reported. No loss of life. (No report of the casualty had reached this Department, nor could any information be obtained; the above details are from private sources.)

158. The British iron screw steamer RUPERRA [of Cardiff, 1,386 tons register, official number 87487], from Cardiff to Aden, with a cargo of coals. On the 3rd

June a most violent hurricane occurred in he harbour of Aden, and the year will be remembered as a fatal one in connection with the Gulf of Aden shipwrecks. The *Ruperra* was lying in the Inner harbour of Aden (South coast of Arabia), when at 1 A.M. the steamer *Naples* dragged her anchors, and in swinging came into collision with her, striking the former vessel on the stern and doing damage to both vessels. The *Ruperra* had a number of her cabin frames in the stern broken, bulged in, and torn away from the upper deck work and other plates stove in. The vessel was temporarily repaired at Aden in order to enable her to proceed to Bombay for survey and repairs, and arrived at that port on the 23rd June. On the 27th the Shipwright Surveyor to the port, accompanied by the Engineer Surveyor, proceeded on board the *Ruperra* in order to ascertain what damage she had sustained. They reported that five stern plates were broken; five frames destroyed; a number of angle irons badly bent and broken; saloon mouldings, &c., in the wake of it damaged and destroyed; ropes, fenders, awnings, stanchions, stern and medicine lockers, settees and ensign staff damaged and destroyed, besides other damage. The Surveyors advised that two iron plates to the broken parts ½″ thick be placed over the principal places of fracture; planks 2½″ thick to be firmly bolted to the original plates outside; all the frames to be properly cemented and the spaces inside filled with cement and the joints made water-tight. These repairs in the Surveyors' opinion would have carried the vessel home had the weather been fine, but taking into consideration the unsettled state of the weather which heralded the S.W. monsoon, they deemed the following additional security absolutely necessary to enable the steamer to reach home safely. Five plates according to the dimensions given to be properly refitted to the stern outside; five plates to form gussets as per dimensions to connect the frame irons inside. They advised that the saloon lockers, cabin fittings, fixtures, and all other wood-works damaged and destroyed should be replaced on the vessel's arrival at Cardiff. The *Ruperra* after having been temporarily repaired left Bombay on the 6th July. Value of damage to the steamer, R2,260. No damage to the cargo. No loss of life.

159. The British iron screw steamer NAPLES [of London, 1,473 tons register, official number 70728], from Cardiff to Aden, with a cargo of coals. On the 3rd June the steamer was lying at anchor in the Inner harbour of Aden (South coast of Arabia), when at 1 P.M., it blowing a hurricane from the eastward, the *Naples* dragged her anchors and buoy's moorings and fouled the steamer *Ruperra,* striking the latter's stern, by which both vessels were seriously damaged. The *Naples* had her bulwarks carried away on the starboard side from the quarter nearly to the waist, three top plates bent and broken, and the life-boat davits and supports carried away: estimated value, £150. No damage to the cargo. No loss of life.

160. The British iron ship EUSEMERE [of London, 2,650 tons register, official number 89638], from Calcutta to London, with a cargo of wheat, jute, linseed, and rapeseed. At noon of the 2nd June the ship under charge of a pilot, and in tow of the steam-tugs *Clive* and *Hunsdon,* proceeded down the Hooghly river as far as Diamond harbour, when at 5 o'clock that evening she was anchored for the night. The next day (the 3rd) the services of the tug *Hunsdon* were dispensed with, and at noon she proceeded in tow of the steamer *Clive;* and when being towed out of Saugor roads that same night the *Eusemere's* towing bitts were carried away, whereby the third officer and five West Indian seamen had their limbs broken, and were seriously injured by the hawser. The pilot at the request of the master brought the vessel back to Saugor, and the injured men were taken to town (Calcutta) in the steamer *Clive* by the master. When taken to the town General Hospital, one of them had his leg amputated; the five injured men were left behind and others shipped in their stead; they proceeded on the

5th June with the master in the tug *Clive* and joined the ship that same afternoon. No other damage to the ship or cargo. No loss of life.

161. The British iron ship GENISTA [of Liverpool, 1,799 tons register, official number 86256], from Calcutta to London, with a cargo of bone dust, wheat and rapeseed. The ship in charge of an assistant harbour master, whilst dropping down the Hooghly river from No. 10 Esplanade moorings on the morning of the 3rd June to Garden reach, with a strong breeze from the southward, grounded slightly on the Shalimar sands on the western bank of the river. She floated off when the flood-tide made, and proceeded down the river in tow of the steam-tug *Retriever* on the morning of the 4th. The *Genista* was aground for about 4 hours. No damage to the ship or cargo. No loss of life. (No official report of this casualty reached this Department; the above details were compiled from private sources.)

[A Departmental Committee of Inquiry was held by the Deputy Conservator concerning the accident, but no copy of the proceedings and report was furnished by the Port Commissioners; it appeared that the assistant harbour master was found to have been guilty, inasmuch as he committed an error of judgment in having allowed the *Genista* to drop too far to the westward and neglecting to use the lead. The assistant harbour master was, however, reprimanded and warned to be more careful in future.]

162. The British iron screw steamer PESHAWUR [of Greenock, 2,130 tons register, official number 65641], from Calcutta to London, with a general cargo. The master stated that the steamer left Calcutta on the 14th May and arrived at Aden on the 4th June. She experienced a severe cyclone on the 3rd when in the Gulf of Aden (the exact position not given), losing three boats and damaging two others. She was otherwise all well, and after having been in quarantine proceeded the same day. Value of damage to the steamer not reported. No loss of cargo. No loss of life. (No official report of the casualty reached this Department, nor could any information be obtained either from the Marine authorities at Aden or the Agents of the vessel; the above details were compiled from private sources.)

163. The British Indian screw steamer COLUMBIAN [of Bombay, 1,404 tons register, official number 7459], from Sawákin and Jiddah to Bombay, with a general cargo, encountered a very heavy cyclone in the Gulf of Aden, midway between Aden and Perim. The following is an extract from the log-book of the steamer: June 3rd, noon, the vessel was then in latitude 12° 29′ N., longitude 44° 05′ E., barometer 29·75; the weather was dull and the sky overcast, when there was a light easterly wind, with a long swell setting in from the same quarter. At 1-30 P.M., the vessel was steering on a S. E. course, there being a squally appearance on the horizon, and an hour afterwards there were baffling winds from the S. E., with a heavy rolling sea, travelling towards the vessel from the S. E. Immediately after this the gale suddenly burst from the N. W., and a terrific squall struck the steamer; the course of the vessel was kept to the S. W. as long as practicable; the hatches were battened, awnings furled, and everything secured about the deck in preparation for a blow. At 2-30 P.M., the wind suddenly shifted to the N.E., and a frightful sea struck the vessel, laying her nearly on her beam ends, the decks under water in a most critical position, the squall blowing with fury, pouring with rain and vivid flashes of lightning. At 3 P M., barometer 29·60, a terrific cyclone with high confused mountainous sea rolling heavily, the barometer now falling rapidly, the master ordered the engines ahead slow to bring her bow to the S. E., so as to enable the vessel to get an offing from the land, which had the desired effect; the crew took in all sails and kept the steamer under bare poles; the storm continued with almost unabated severity for 6 hours. At 3-30 P. M., barometer 29·50, a terrific gale blowing, the steamer stood to the southward. Half an hour after-

wards, the barometer rapidly falling, the wind shifted to N. E. by E., squalls terrific with blinding rain, tremendous seas breaking clean over the vessel. At 4-30 P.M., barometer 29·26, still falling, the wind shifted to E. N. E., and the cyclone was at its maximum; dark appalling weather, tremendous seas came from all directions with heavy deluge of rain, the waves breaking on board fore and aft and washing away tarpaulins from all the hatches and stove in the main hatch, and a large body of water rushing below, caused the sand ballast to be shifted, breaking adrift deck fittings, completely smashing the port life-boat, carrying away the davits, destroying the poop under the port life-boat, the starboard life-boat carried away, stove in the port cutter, and bending davits in board with the force of the wind; washing away the jib off the bowsprit, and carried away the foresail off the yard, the saloon and forecastle were flooded, and altogether the steamer was in a critical position. At 5 P.M., the barometer 29·20, the master, finding the wind and sea rapidly increasing in strength, supposed that the vessel was approaching the centre, and the steamer was hove-to on the starboard tack. Immediately afterwards the wind changed to the East and the vessel took a heavy plunge, when the master believed she was in the right hand semicircle of the gale, and heaving to on that tack it would bring head to sea with shifts of wind; the sea at that time being very high and confused. At 5-30 P.M. the wind suddenly changed to E. S. E., raging with hurricane force, barometer 29·20; the engines were slowed, and the vessel was kept to the northward as long as practicable. This continued till 6 P.M., when a break in the weather was observable, the wind commenced moderating from the S. E., the squalls not being so severe, and the barometer began to rise slowly to 29·40. An hour afterwards dark banks of clouds observable from the S. W. quarter, barometer 29·60, wind moderating, sea going down gradually, and the vessel rolling heavily. At 8 P.M., barometer 29·70, a fresh gale from the E. S. E., fearing the heavy seas abeam would sweep decks, and also to ease her rolling, the master put the engines ahead half speed to bring bow to the wind and sea. At 9 P.M., barometer 29·86, the wind shifted to the eastward, and steadily moderated. At 10 P.M. the steamer stood up to the northward to make the land, the lead kept constantly going; wind the same, with blinding torrents of rain at intervals. Midnight, wind moderating from eastward and sea going down. As it cleared up, the master sighted the high land of Jebel Kharag which bore N. 47° W.; took a cast of the lead but got no bottom at 50 fathoms. At 1 A.M. on the 4th, the wind moderating, the master began to stand in for the land, and at 3 A.M. sighted Saddle hill bearing N. 17° W., distant 10 miles; the master shaped a course for Aden, and at 9 A.M. proceeded into Aden harbour to repair damage and get fuel. After filling up her coals and effecting temporary repairs she resumed the voyage to Bombay, where on arrival the master noted protest and called a survey on the vessel. Value of damage to the *Columbian*, ₹8,000; cargo not reported. No loss of life.

164. The British iron screw steamer MALEK [of London, 1,054 tons register, official number 87078], from Cardiff to Basra, with a general cargo, was overtaken by a cyclone 4 miles South of Aden at noon of the 3rd June. On the 2nd of that same month the barometer in the afternoon was 29·74, weather dull and sky overcast, and there was a light easterly wind with a long swell setting in from the same quarter. At 11 A.M. on the 3rd, barometer 29·83, the wind and sea increased and torrents of rain fell, the steamer was eased to half speed. At 1 P.M. the crew got an anchor over, preparing to enter Aden. The master stated that at about 1-30 P.M., when 4 miles South of Aden (South coast of Arabia), a very sudden and severe cyclone burst from the N. E. and S. E. by E., blowing with fury, pouring with rain and with most vivid flashes of lightning, the sea seeming to come from all quarters and flying over the vessel, obscuring objects, and the vessel paid off broadside to the wind. At 2-30 P.M.,

barometer 29·72, wind North, velocity estimated 90 miles an hour, a tremendous sea struck the steamer, burying her so completely that for some minutes it was impossible to tell whether she was going down or not, during which time she had her deck cargo swept overboard; the after skylight smashed; rails and bulwarks destroyed; awning stanchions and awnings carried away; tarpaulins and hatches blown overboard, which the crew did their utmost to replace, but found it impossible to do so before the wind moderated; No. 2 hatch was swept off, large quantities of water entered into the hold, damaging a considerable portion of the cargo. The first officer had the end of his thumb torn off and 6 men were seriously disabled. The bilge and the hand pumps had to be kept working for some time to clear the steamer of water. At 6 P.M. the vessel turned round and steered to the northward, and at 8 P.M. put into Aden for survey and repairs. On the 5th a survey was held on the vessel, when it was found that she was in a fit condition to proceed to her destination; after coaling she resumed the voyage on the morning of the next day. Value of damage to the *Malek* and cargo not reported. No loss of life.

165. The British iron screw steamer BALCARRES BROOK [of Liverpool, 1,306 tons register, official number 87896], from Cardiff to Singapore, with a cargo of coals. The master stated that at 4-30 P.M. on the 3rd June the steamer passed Perim island (Red Sea); the weather was threatening, with light rain at times. A little after 5 o'clock, aneroid 29·73, a fresh breeze sprung up from S. E. by E., accompanied with blinding flashes of lightning, and soon after hot blasts of wind came from all directions with heavy showers of rain. At 6 P.M., aneroid 29·71, a very sudden and violent gale came on at S. E. by E., veering afterwards to E. by S., accompanied with thunder, lightning, and heavy rain and a high cross sea. She hove-to under steam on the port tack, and from 6 P.M. up to 10 P.M. a strong gale with a tremendous sea came from the E. N. E. and the N. N. E., the waves dashing on board fore and aft, and breaking adrift the deck fittings, side ladders, boats, &c.; a large quantity of water rushing into the stokehole put out nearly all the fires. The crew had to bale out the water, and steam was maintained with great difficulty. At 11 P.M. a break in the weather was observable, and the master hearing cries of distress from the water, ordered the engines to be stopped. A boat was then lowered, and after steaming slowly round succeeded in picking up 4 men, in a very exhausted condition, who subsequently proved to be part of a crew of the Turkish ship *Fattel Barry*, which vessel had foundered in the cyclone, and landed them at Aden. Value of damage to the steamer and cargo not reported. No loss of life.

166. The British iron screw steamer INCHULVA [of Liverpool, 1,453 tons register, official number 80805], from Cardiff to Bombay, with a cargo of coals, encountered a cyclone 70 miles S. E. of Aden. A little after midnight on the 2nd June a fresh breeze sprung up, accompanied with blinding flashes of lightning, and soon after hot blasts of wind came from all points of the compass with showers of rain. At 8 o'clock on the morning of the 3rd a heavy swell from the eastward set in, followed by a heavy deluge of rain. According to the ship's log-book, at half past 9 A.M, a terrific squall struck the vessel from N. N. E., blowing with fury, pouring with rain and most vivid flashes of lightning, the sea seeming to come from all quarters, flying over the steamer, obscuring objects everywhere but just where one stood. The master stated that as soon as the cyclone became apparent he steamed full speed to the northward with a view to clear the centre, which passed to the South of the vessel, and the master steamed in that direction until the gale became too strong, and he then slowed the engines and lay-to. At 10 A.M., the wind N. E. by N., blowing a perfect cyclone, the vessel became quite unmanageable, notwithstanding that the helm was put hard-a-port and the engines slowed, the tremendous East sea preventing her from heading to the northward. An hour afterwards the wind

still the same, and at this time a frightful sea struck the steamer, burying her so completely that for some minutes it was impossible to tell whether she was going down or not, but after the sea cleared away some idea of the damage was obtained. Nos. 1 and 2 hatches were the greatest danger, the tarpaulins being literally torn to shreds and the sea pouring into the holds; the port life-boats and davits gone; the engine-room ventilators and stokehole coverings carried away; the forecastle, the lamp-room, the engineers' mess-room, and the cabin gutted; the galley, the alleyway doors, and the cabin skylight smashed, and the whole deck presented a most dismal scene of wreck. Everything that human beings could do was done to stop the water going down the holds—canvas, sails, &c., being used. Happily the hatches were secured, and the master stated that the cyclone was raging furiously, in a manner that none but those who have experienced them could understand. Noon, the wind hauling easterly, the fury of the hurricane seemingly being spent. The position of the steamer at that time was 11° 56′ N. latitude and 45° 58′ E. longitude (Gulf of Aden). The chief engineer reported water over engine-room floor, and stokehole plates being washed up, and washing about the stokehole, which the firemen had deserted, the bilges full of coals and water, and all the pumps choked. The steward reported the cabin skylight smashed, the dead-light door aft smashed, and the cabin and store-room full of water. At 1 P.M. the cyclone moderating, the wind E. by S., and an hour afterwards it changed to the S.E. moderating fast, but the sea still very bad. The carpenter sounded the holds and found 3′ of water in No. 1 hatch and 4′ in No. 2, and reported it to the master, who thereupon ordered the crew to have the deck pumps rigged, but the sea soon disabled them. At 4 P.M. the wind veered round to the southward, moderating, and the sea going down fast, when the master ordered all hands not disabled to clear away the wreck; the engines at that time were kept going slow. No loss of life occurred, but the carpenter, the boatswain, and 3 men were disabled with dislocated bones and bruises. At midnight moderate breeze and fine clear weather, the sea going down. The steamer *Diomed* signalled the *Inchulva* on the 5th of that same month 140 miles East of Aden, repairing her damage at sea, having been disabled in a cyclone. On the 10th the steamer arrived at Bombay, where the master noted protest and called a survey on the vessel. On the 16th the *Inchulva* was examined by the Shipwright Surveyor to the port, assisted by the Engineer Surveyor. After a careful examination of the hull, they reported that the port life-boat davits were bent and broken; the gangway davit bent and twisted; the two engine-room ventilators, the cowls, the flanges, &c., completely torn, broken up and washed away; one large No. 3 hold ventilator torn from the deck and part washed away; the two after-tank ventilators broken, and others started and partially broken; the cabin and galley funnels broken; part of rails on bridge deck torn away and carried overboard; the rails and iron-work on the after-house broken and twisted, and part of the main deck rails bent and broken; the starboard light-house started; cleats of main hatch started; the forecastle ladder bent and carried away; the bunker doors in alleyway broken; the forward deck pump gear bent and broken; the steam-pipes and covers torn off, bent and broken; all four steam-winches started and portions of them bent and broken; the iron-work on engine-room skylight torn away and carried overboard; hatch combings started fore and aft; the after deck-house started, loosened, strained and leaking badly all over; the steering gear badly strained and broken; the upper bridge awning stanchions, ridge pole and frame work completely smashed by the sea and washed overboard; the engine-room skylight, galley, and cabin skylight all destroyed by the sea and the places filled with water; the furniture, &c., broken up and washed away; the chart-room doors, the forward water-closet door, the lamp-room door, all destroyed by the sea, and the contents of the lamp-room carried away by the sea; the port life-boat and its contents smashed to pieces and washed away; the star-

board life-boat started and the life corks, &c., carried away by the sea; the topgallant forecastle gutted, all the wood-work smashed up and the ropes and other articles carried overboard; about 20′ of the main rail on the port side forward broken; the gangway and hold ladders destroyed or carried overboard; the upper bridge and the after-house ladders broken; the wood-work of the deck around several ventilators torn up; the port after pin rail cut up; the main deck cut up, strained and leaking fore and aft; the bridge deck strained and leaking badly; the topgallant forecastle gutted by the sea, smashing up and carrying all the fittings away; the carpenter's shop door broken; the lamp-room door destroyed; the galley skylight smashed, and the galley filled with water and breaking up; the galley range funnel broken; the chart-room doors destroyed; the flag locker on the after-house broken; the cabin skylight smashed by a terrific sea striking the vessel, and the cabin filled with water bursting open the doors and carrying overboard and breaking them; store-room destroyed, filling every place with water and completely ruining several articles of provisions, and some of the barrels being washed about by the water got smashed and the contents lost; the covers for cable chain pipes lost; one stove and funnel for forecastle, the socket for starboard life-boat chock badly strained; the cabin door bar broken and lost; the leading block No. 3 derrick carried overboard; the main gaff broken in two pieces; the hencoops broken and harness casks started; the ridge pole and wood-work attached to the after-house awning destroyed; 3″ and 5″ Manila ropes, a number of blocks of various sizes, and a quantity of ship's tools lost; one 50-gallon cask parafin oil, one 50-gallon cask raw oil, 9 large lamps, 1 masthead lamp, 2 side lamps, and one bull's-eye lamp, destroyed and washed overboard, also a number of other lamps damaged; Nos. 1 and 2 hatches' tarpaulins torn to shreds and lost overboard; the tarpaulins of Nos. 3 and 4 hatches badly chafed and cut. The crew in securing No. 1 hatch used and cut up 5 boat sails, a main deck awning, and a coil of 2″ Manilla; in securing No. 2 hatch the crew used and cut up a foresail, 3 bolts of Nos. 2 and 3 canvas, 1 coil $2\frac{3}{4}$″ Manilla, 1 coil rattlin stuff and a quantity of deal shifting boards; the upper bridge after-house, parts of after deck and forward deck and the awning and gear attached destroyed and lost overboard; also two life-boats' covers (new) and the main trysail; the galley fittings destroyed; a number of nautical works, charts, &c., damaged by sea water; most of the ship's flags washed overboard; the cabin clock and vessel's chronometers damaged by sea water, and compass destroyed. On the 6th July the Surveyors again visited the steamer and reported that they had finally examined the hull, machinery, and boilers of the steam-ship *Inchulva,* and found that the repairs had all been executed to their satisfaction. The vessel was in their opinion in every respect in a sound, staunch and seaworthy condition, and fit to proceed on her intended voyage. Value of damage to the steamer and cargo, ₹25,012. No loss of life.

167. The British iron screw steamer DUKE OF DEVONSHIRE [of Barrow, 2,024 tons register, official number 68222], from London to Calcutta with a general cargo, was overtaken by a cyclone in the Gulf of Aden on the afternoon of the 3rd June when off the port of Aden. The following particulars have been gathered from the steamer's log-book: At 1 P.M., on the 2nd of that same month, the position of the vessel by observation was in latitude 14° 44′ N. and 42° 19′ E. longitude, and by account was latitude 14° 49′ N., longitude 42° 25′ E., barometer 29·79, temperature 96°, wind a moderate breeze from W. N. W. with hot sultry weather, course steered S. 26° E. At 1 A.M. on the 3rd the weather was hazy with light S. E. winds. At 3 A.M. the Perim island light was sighted, bearing abeam; the master estimated his distance from it to be 5 miles, course steered the same. At 4-30 A.M. passed the steam-ship *Duke of Buccleuch,* of the same line of steamers, bound West;

the course was altered to S. 63° E., and the vessel was going through the water at 10 knots an hour; the weather overcast, with a moderate breeze; all hands were employed in shifting vessel's stores from the fore hatch to the after store-room, and everything was secured about the deck in preparation for a blow. At 10 A.M., the wind being South to East, the course was changed to East, barometer 29·70, the wind was very unsteady, with considerable head swell and heavy rain at times; the crew were ordered to furl the forecastle awning and the forepart of saloon awning. Noon, the barometer went down fast to 29·50, the weather was looking very threatening, the steamer going at the rate of 9 knots per hour. At 12-30 P.M., hard squalls, the wind increased furiously from N. E. flying to North and S. E. veering to westward, and the rain came down in torrents; the sea rose from the eastward with marvellous quickness, huge waves rearing themselves perpendicularly and breaking in mass in mid air, and dashing over the steamer in overwhelming torrents; the engines were kept going slow. At 1 P.M. a fearful cyclone suddenly burst from the westward, veering round to S. W., and S. E., the barometer having fallen half an inch in half an hour to 29·20; a tremendous cross sea came from the same direction which flooded the decks, sweeping and tearing everything away before it. The cabin doors of the after-house were washed away, and everything completely gutted out of the cabin; the cargo in No. 1 'tween decks shifted, several casks of cement and some cases broken, a large body of water got into the store-room and destroyed a quantity of the vessel's stores. This continued till 5 P.M., when a break in the weather was observable, and the barometer began to rise. Endeavours were made to keep the steamer to the wind and sea on the port tack as long as practicable. At 2 P.M. the engineer reported that a large quantity of water rushing into the engine-room put out the starboard wing fires, the water being up to the bars; there was nearly 28lb of steam on. The wheel-house filled with water several times, smashing steering compasses, boats' compasses, and doing other considerable damage in there. At 3 P.M., the cyclone was at its maximum, the wind rapidly increased in strength from E. N. E., the course of the steamer was kept to the eastward going at the reduced speed of 3 knots an hour, the sails were torn out of the gaskets, awnings and boats' covers blown away, two jolly-boats and davits blown in-board, the boats smashed, the davits bent and rail broken, the accommodation ladder washed away, sheep pens, 16 sheep, the gangways, the blacksmith's forge and every moveable thing carried away, and the waves dashing on board, a large quantity of water got below; the hencoops, meatsafe, the saloon skylight and boats' chocks broken, No. 5 cutter smashed and other boats strained. At 3 P.M. the position of the steamer by account was 12° 27′ N. latitude and 44° 41′ E. longitude: no observations could be got. At 4.M. the carpenter reported 6′ of water in the after compartment. At 5 P.M. the wind had got round to S. E., having backed from westward, after which it commenced to moderate fast from that quarter, and at 6 P.M. Cape Aden was in sight bearing North distant about 24 miles. During the fury of the hurricane the boatswain was knocked down and had his leg broken, also 6 deck hands were severely injured and incapable of doing duty for six days. The barometer rose rapidly and the wind moderated; the crew were at once called, and the master gave orders to set the after bilge pump by No. 4 winch, and after working them till 9-30 P.M. the water decreased rapidly; the master put the steamers' head to the eastward and went slow up till midnight, when after having got all water out of the holds, she went full speed ahead, proceeding at the rate of 9 knots an hour. At 1 A.M. on the 4th there was a light breeze from the S. E., and weather squally, with rain and lightning to the northward and southward; the crew were employed to clear away the wreck and sent down the pieces of sails remaining. At 8 A.M. moderate breeze and fine clear weather, signalled the steam-ship *Glenochil*, which sent a

boat alongside, when the *Duke of Devonshire* reported having encountered a violent hurricane. The former vessel reported having picked up 6 Arabs from some wreckage a considerable distance to the eastward of the *Duke of Devonshire*. The *Glenochil* also had met with very heavy weather to the eastward. Those Arabs stated that they saw two steamers go down stern first on the 2nd June, after which the sea was covered with wreckage. Noon, the barometer 29·80; weather fine with light N. E. wind; steered East, going 9 knots an hour. At this time the horizon was clear, when sights were taken and the position of the vessel by observation was 12° 53′ N. and longitude 53° 29′ E.; the course was altered to N. 86° E., and the log showed that she ran from 3 P.M. of the 3rd to noon of the 4th 344 miles. At 4 P.M., the weather squally with threatening appearance to the southward; the crew bent the reefed fore trysail; the wells were regularly sounded but no water found. Midnight, calms with light breeze at times, and fine clear weather. The master of the *Duke of Devonshire* stated that the cyclone was the severest ever known, and the vessel was so terribly battered that she must inevitably have foundered on the afternoon of the 3rd, had the weather not moderated soon afterwards. The steamer had been chartered by the Imperial Government to bring troops to India, but fortunately the charter was cancelled just before sailing. Had there been any troops on board she would assuredly have been lost, as it would have been impossible to batten down the hatches. The vessel proceeded to Calcutta and arrived there on the 22nd of that same month and was safely anchored off No. 4 Jetty. There the master called a survey on the steamer, and on the morning of the 24th the Surveyor to Lloyds' Agents proceeded on board the *Duke of Devonshire,* in order to make a survey on the damage sustained by that vessel whilst in a cyclone off Aden on the 2nd June. After making a careful examination, he reported that a cutter was smashed and fittings washed out by the sea, and recommended that a new cutter be supplied with all fittings complete; a ship's dingy injured, to be repaired; 7 pieces of portable rail abreast the hatchways broken and washed overboard, to be replaced with new pieces of teakwood rail fitted with brass ends, iron stanchions and rods; 20′ of rail broken on the starboard side, to be replaced with new; about 40′ of rail split and broken on the port side aft, to be replaced with new teakwood rail; rail stanchions and rods of rail on the port side aft bent and broken, to be unshipped, straightened, and repaired; the iron clamp on rail for after-boats' davits on the port side bent and the fastenings broken, to be taken off, straightened, and refastened on the new rail with new bolts and nuts; the wooden rail, iron stanchions and rods all round the vessel on both sides more or less started and bent, to be refastened, straightened, and repaired as might be found necessary; the starboard forecastle head-ladder with iron hand-rails smashed, to be replaced with a new ladder and hand-rail; two hencoops broken, and a third one said to have been washed overboard, one new hencoop to be supplied in lieu of the one lost and two to be repaired; the starboard side accommodation ladder with lower platform, and all iron-work, torn away from the side and lost, leaving only the upper platform, to be replaced with a new accommodation ladder with all fittings, except the upper platform; a teakwood hawser rack fitted on deck abaft the foremast badly damaged and part of it washed overboard, to be repaired and a new grating to be fitted; plate-iron ash shoot on starboard side torn from the fastenings and lost overboard, a new ash shoot to be supplied and fitted same as the one on the port side; two galvanized steam-winch exhaust pipes broken and partly washed overboard, to be replaced with new exhaust pipes; two lead-lined windsails fixed to the monkey poop aft torn from their fastenings and completely destroyed, to be replaced with two new ones fastened as before; the monkey poop ladders smashed, to be replaced by a new ladder; three pieces of iron casing over the steam

pipe leading to the steering gear aft torn off and lost, to be replaced with three new pieces of iron casing; the port side of the iron wheel-house aft dented inwards, to be repaired and some of the planks of the monkey poop to be removed in order to get at the rivets; a steering compass and 4 boats' compasses in the after wheel-house more or less damaged, to be repaired and put in good order; three doors of the after deck-house damaged and broken and the cabin bulkheads and fittings broken and damaged and part of them washed away, the doors and fittings to be repaired and renewed as required; a small gun-carriage on deck damaged and one of the wheels lost overboard, to be repaired and a new wheel supplied of lignum vitæ; two deck ventilator flanges broken, the cowl heads washed overboard, two new cast-iron flanges to be supplied and fitted on deck and new cowl heads supplied; the doors and panels of the forecastle bulkhead damaged and broken by the sea, to be repaired as required; cast-iron wire hawser reel broken, a new side to be cast and fitted; saloon skylight damaged the plate glass, and brass guard and frame broken and brass railings round the skylight bent and broken, to be repaired and a new stained glass to be supplied when the steamer arrived home. According to the vessel's log-book and the master's statement the following articles were lost overboard during the cyclone: A set of boat covers and all steam-winch covers; a Downton's force pump and a harness cask, two sheep pens and 16 sheep; a blacksmith's portable forge; 15 fire-buckets; side ladder lashed to rail; the tarpaulins on the five hatches; two engine-room wind-sails; two grindstones with troughs; four life-buoys; one 100-gallon iron water-tank lashed to the deck on the starboard side abreast the foremast; a quantity of steamer's provisions and stores stowed on the orlop deck in the forehold were much damaged by sea-water, and the casks and cases broken; the tarpaulins washed off from all the hatches, much water went into the hold; the foretopsail jib; the fore, main, and mizen trysails with all running gear lost, damaged, or destroyed; also the saloon forecastle head awning. The donkeyman attending to the donkey-boiler for steam-steering gear whilst in the act of letting water off the boiler was washed away by the sea and seriously injured, the stop valve being open the water ran out of the boiler, and the crown of one of the new furnaces of the boiler was burned, to be renewed. Value of damage to the *Duke of Devonshire*, £950. No loss of cargo. No loss of life.

168. The British iron screw steamer CARLTON TOWER [of London, 1,480 tons register, official number 85054], from Swansea to Basra, with a general cargo. The steamer sailed on the 18th of April bound to the Persian Gulf *vid* Marseilles, Jiddah, Hodeidah, and Obokh, with 47 native passengers and a general cargo. She arrived at Obokh on the 23rd May, and was discharging cargo from that date up till the day of the accident. The master stated that on the 3rd June the weather was gloomy and the sky overcast, and there was a fresh breeze from the East, with a long swell setting in from the same quarter. At 8 o'clock that night the vessel was lying at anchor in Obokh roadstead with one anchor down, in 14 fathoms of water, with 45 fathoms of cable out at the hawse. Thirty minutes afterwards the wind increased rapidly, with rain and very vivid lightning. All hands were mustered to furl the awnings and to stand at their respective stations. At 9-30 P.M., the wind still increasing, it blowing heavy from the S. W., the master immediately gave orders to get up steam in the donkey-boiler; and steam being all ready, the crew let go the second anchor and veered cable to 50 fathoms on the second anchor and 90 fathoms on the other. At 10 P.M. the wind was at West, and the cyclone raging in full fury, with rain falling in torrents and very vivid lightning, and the darkness was most intense. Orders were then given by the master to get up steam on main boilers with all possible despatch. The cyclone at that time being at South was still raging, and the rain falling in torrents, the lead and line were used for the purpose of finding

out whether the steamer was driving, but owing to the great force of the wind and the terrible darkness it was of no avail. The awnings were blown out of the gaskets and torn to pieces, and two windsails lost. Twenty minutes afterwards the *Carlton Tower* dragged her anchors and struck the ground aft on a coral reef at Dunkali in Obokh South port, Gulf of Tejureh (Africa, North-East coast). The vessel continued striking heavily until the cyclone abated, the result being that the steamer got her bottom damaged and was making water. At 11 P.M. the rudder had lifted 3″ in the flange in the wheel-house aft. The master then directed the boats to be swung out and lowered to the edge of the bulwarks, ready for immediate use if required, as the swell began to roll in heavily, thus causing the steamer to strike considerably aft. Distress signals were at once sent up from the vessel and were answered from the coast by guns, but no assistance could be rendered from the shore. About midnight the gale moderating, orders were given to turn ahead, but after repeated attempts the engineers were unable to move the engines, as the propeller was embedded in the reef about 3′. After the accident occurred a boat was lowered to sound round the vessel at low-water; 7 fathoms were found under the bows on the port side, 6 fathoms at the main rigging, 4 fathoms at the mizen rigging, and only 9′ over the stern. The draught of water when she struck was 21′ 3″ aft and 13′ 6″ forward. The wells and tanks were sounded all the time, and it was reported that the vessel was making no water except in the after peak tank, where she made 3½′ per hour. On the 4th the weather being more moderate with rain, the vessel's boats were lowered and 47 native passengers were landed, in consequence of there being no shelter on board. The master immediately employed coolies from shore to assist the crew in jettisoning and shifting the cargo; coals were thrown overboard and the valuable cargo shifted from aft to forward. At noon, it being high-water, efforts were made to get the steamer off the coral reef by heaving on the chain cables, but without success. The water in the after peak tank was kept down by the aid of the steam pump, and endeavours were again made to work the engines, but they could not be moved. The master then entered into an agreement with the owners of the small tug steamer *Dunkali* to attend on the vessel for three hours every high-water until she was towed off or abandoned; in the former case they were to get £150 and in the latter £40, there being then two vessels at anchor in the roadstead—one the French gun-boat *Pengoine,* and the other was the tug *Dunkali.* At dawn on the 5th, the master of the *Carlton Tower* went alongside the French gun-boat and asked the master to run a stream kedge out with a long scope of hawser, three 7″ hawsers of about 90 fathoms each, being fast one to the other, and the captain of the *Pengoine* at once gave the assistance of 12 men and an officer. The crew in the meantime continued throwing coals overboard until 1 P.M. that same day, when the water having risen all efforts were directed to get the vessel off by heaving on the kedge and cables and working the main engines slowly; in doing so three of the blades of the propeller broke, but the steamer came off without assistance after having been lightened 2′ by throwing overboard 120 tons of coal. On this last occasion the *Dunkali* rendered no assistance, as she had no coals on board, and her master was afraid to bring her alongside the *Carlton Tower* on account of the heavy sea; the tug could not even get coal from shore, as all lighters and small craft were sunk. The master hove up both anchors and began steaming slowly off, and finding she was clear of all danger, re-anchored her in 14 fathoms of water, with the starboard anchor veered to 30 fathoms, in the same place where she was lying previous to the casualty. She was aground for 38 hours. After getting off the reefs the wells were sounded, and it was found that the vessel was leaking considerably in the after peak tank. The steam-steering gear broke as the steamer came off, from the rudder being displaced. Thereupon the master, finding that he was unable to do anything at Obokh, proceeded at 1 A.M. on the

6th to Perim harbour, where she anchored at 7 A.M., the *Dunkali* having in the meantime left for Aden without giving the *Carlton Tower* any warning, although asked by the master of the latter vessel to do so. There the master called a survey on the vessel, and after examination by the pilot of the Perim Coal Company, assisted by a master of a sea-going vessel and the divers of the port, it was reported that three blades of the propeller were damaged, but not to such an extent as to materially affect her speed; the rudder had lifted, but was again in its place; the two bolts in the upper clamp broken, to be renewed; the steam-steering gear slightly broken, to be repaired at once; the spindle of the winch at the fore hatch was bent through straining in endeavouring to get the vessel off; the port life-boat was bilged, one plank to be repaired; two hawsers, one 5″ and one 7″, had been rendered useless, to be replaced; all the awnings and boats' covers destroyed, to be replaced; and the deck from the bridge forward strained, to be recaulked. Although the vessel was making water at the rate of 3½′ per hour still, as it was flowing into a water-tight compartment (the after peak ballast tank) which had no connection with any of the holds, the Surveyors considered that she was in a fit condition to prosecute her voyage, docking at the first convenient port she arrived at for further examination. On the 8th the Superintending Engineer accompanied by the Superintendent of lighters (both in the employ of the Perim Coal Company) proceeded on board the *Carlton Tower* in order to make an examination of that vessel's engines. After a minute survey they reported that the engines were in a seaworthy condition, although the turning gear bracket was broken. This, they recommended, should be temporarily repaired, there being no facilities at Perim harbour for making such a large casting, but it should be made good at the first convenient port. This accident was, in the opinion of the Surveyors, caused when the steamer was ashore. On examining the tunnel it was found that all the main shafting bearings were in good order with the exception of five circular angle-irons in the tunnel leading towards the stern, which were broken in the centre; this might have occurred through the bumping or by pressure from above. They advised that these be strengthened by pieces of angle-iron being put on before she sailed from Perim harbour; and also a man-hole door be cut in the after peak tank in order to get at the seat of the leak, there being no means of finding this out as the tank was at present constructed, the water pumped out and a farther survey held. Next day (the 9th) the Surveyors again visited the vessel. They stated that as a man-hole door had been cut in the after peak tank, and the water pumped out of the said tank, they were enabled to examine all round the stern tube, which, in their opinion, was in good order and condition, but they could not get at the damage, as it apparently was between the stern tube and the keelson, and so far down that the full extent of the damage could not be ascertained until the vessel was docked. The leak was of a serious character, the water flowing freely into the after peak tank at the rate of 3½′ an hour; that tank was entirely shut off from the rest of the vessel. The *Carlton Tower* was surveyed as far as it was practicable to do so, but the Surveyors could not sight the whereabouts of the leak exactly unless she was docked. She was therefore ordered to repair temporarily in Perim harbour, after which she should return to Obokh to complete discharge for the purpose of docking on the first opportunity; but after the second survey it was detected that the damage was greater than was at first ascertained, and that the leak could not be repaired without docking; the Surveyors accordingly recommended her to proceed at once to Bombay, as being the nearest port, for repairs. On the 10th the *Carlton Tower* was lying moored in Perim harbour temporarily effecting her repairs, when the steamer *Westergate*, whilst going easy ahead immediately after weighing anchor that same evening, came into collision with the *Carlton Tower*, striking the latter vessel on the stern, thereby doing slight damage, *viz.*,

starting the after bulwark rails, five plates bent and broken, and bending two angle-irons of the fish-back deck over the roof of the wheel-house. The damage to the *Westergate* consisted, it was stated, of the stock of one anchor breaking short and one or two plates dented. On the morning of the 11th the *Carlton Tower* was examined by the Engineer Surveyor accompanied by the Superintendent of lighters, in order to ascertain what injury she had received by this collision. After an examination they found that the vessel's after bulwarks and fish-back deck over steering house were badly bent, broken, and twisted; they advised that these plates be taken out and replaced by new ones, but that the damage caused was not of such a nature as to endanger the steamer in any way They reported that there was no need for her to undergo the repairs at Perim, and that the estimated cost of remedying the damage would not exceed £500. The owners wired to the master to proceed to Aden and there discharge the cargo for Obokh; the *Carlton Tower* consequently left Perim on the evening of the 11th, arriving at Aden on the early morning of the next day. On the 13th the master called for an independent survey on the steamer, the Surveyors being assisted by two European divers. The Surveyor to the port reported that, accompanied by the Engineer Surveyor, they proceeded on board the steamer, lying afloat in the harbour of Aden, in order to ascertain, under the provisions of the Bombay Act II of 1864 as amended by Bombay Act IV of 1873, whether she had sustained damage by grounding at a place in the Gulf of Tejurah about 120 miles S. W. of Aden, and to report whether it was absolutely necessary to place the vessel in dry dock for examination and repairs before she arrived home. They reported that by the aid of divers, who were employed to examine the vessel's bottom, it was ascertained that the steamer leaked a good deal in one place only, close to the stern post through the seams of two plates below the shaft; the plates were each started about one foot in length fore and aft on each side of the stern post. The leak ran into a water ballast tank fitted to the stern of the vessel; the plates of that tank were $\frac{5}{8}''$ in thickness, and the depth was about 15′. They advised that the tank should be filled and the man-hole door thoroughly secured and made water-tight; it was ascertained that the donkey-pump could subdue the leak, but it was considered better that the tank should be closed and filled, as it would then not be of any consequence whether the leak increased when the steamer was at sea; the loose rivets in the transverse plates supporting the stern tube should be tightened up, and one which was broken replaced; all the plates and rivets were started on each side of the vesse from the stern frame to the length of three plates forward and to the height of about 10′ from the keel; some plates round the stern frame being broken; the garboard strake started, and plates broken on each side of the keel; the after part of rudder frame broken and the plates and rivets of same shaken; one $5\frac{1}{2}''$ rope destroyed and lost; one 5″ hauling line and one coir hawser were badly chafed in trying to get the vessel off the ground, and the barrel of No. 1 winch bent. On an examination round the deck it was found that the running gear was badly chafed, the awning stanchions bent, the deck awnings destroyed, the tarpaulins cut and chafed, and a leading block carried away. In addition to the above damage the port life-boat was damaged and stove in whilst landing the native passengers; the teak-wood accommodation ladder, which was used in landing the passengers in the surf, was badly damaged and strained; the steam windlass and the fore deck strained; boats' covers destroyed; two boats' globe lamps lost in trying to obtain soundings; the steam-steering gear was broken by moving the rudder when the vessel came off the ground, which was attributed to the rudder being lifted; the keel scarph was started and opened half an inch before the stern post; and the short part of the keel overlapping the rudder post (abaft) was slightly bent, which might prevent the rudder from occupying exactly its former position, but which was not likely to interfere with its

working properly; the propeller, a four-bladed one, had one blade uninjured and another chipped; the third was about 4′ broken short off, and one blade had 2¼′ broken off, but the Surveyors considered that the propeller was serviceable. They accordingly advised that the whole of the cargo be discharged at Aden and the *Carlton Tower* afterwards proceed to Suez, as being the nearest port with safety to dock for repairs, care being taken not to drive the vessel too hard against a head sea. The steamer, after the suggestions of the Surveyors had been carried out, weighed and proceeded to Suez and arrived there on the 23rd June. Value of damage to the *Carlton Tower*, £1,108; cargo worth £120 was lost and about £500 damaged. No loss of life.

[A Special Court of Inquiry was held in the Court of the Political Resident at Steamer point, Aden, by the Political Resident and Sessions Judge, on the 16th, 18th, and 20th June, under the provisions of sections 7 and 8 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances connected with the stranding of the above vessel in the port of Obokh, Gulf of Tejureh. The Court on the 16th June duly assembled, and after reading the papers received with the Resolution of Government, recorded that it appeared that this Inquiry was likely to involve the consideration of questions as to the cancellation or suspension of certificates, appointed, under section 13 of the above Act, as their assessor for the purpose of this investigation, a gentlemen conversant with maritime affairs. The report of the casualty by the master was read and recorded; the witnesses for the prosecution were then called, sworn, and examined, after which an adjournment took place until the 18th. On the Court re-assembling on that day further evidence was taken, and on conclusion of their evidence the Court adjourned to the 20th to consider their finding. After consideration the finding of the Court was read by the President on that day. The Court observed that the facts of this case were as follows: The steamer sailed from Swansea on the 18th April, bound to the Persian Gulf *viâ* Obokh, with a general cargo. The vessel was properly equipped and in good condition. The master stated that the steamer arrived safely at Obokh on the 23rd May, and was discharging cargo from that date up till the 3rd June. On that day she then drew 21′ 3″ aft and 13′ 6″ forward. The weather was cloudy and overcast, and the wind moderate and variable, and the steamer was lying safely at anchor with one anchor down in 14 fathoms of water and 45 fathoms of cable at the hawse. The bearings of the place where the *Carlton Tower* was lying on the day of the storm were South Island W. by S. and the Agent's house N. N. W. ¼ W., magnetic. At 8 o'clock that night the barometer was 29·60, the direction of the wind, which had increased in force to the rate of 33 miles an hour, being N. W. An hour afterwards the master, finding the wind still increasing, let go a second anchor and veered out to 50 fathoms of chain on it and 90 fathoms on the first anchor. At 9-20 P.M., the barometer being at 29·20 and the wind West, with a velocity of about 100 miles an hour, the master ordered steam to be got up in the donkey-boiler in order to have everything in readiness either to shorten in or veer away. At that time it was blowing a perfect hurricane, and the rain falling in torrents with vivid flashes of lightning, the darkness being intense. The fires were then lit in the main boiler, and the lead and line used for the purpose of ascertaining whether the steamer was driving; but owing to the great force of the wind, the intense darkness which prevailed, and the vessel yawing, the lead was of no use. At this time the awnings were blown out of the gaskets and torn to pieces. At 10-30 P.M., the barometer not being recorded and the wind S. W., the *Carlton Tower* struck the ground aft on a coral reef in the Gulf of Tejureh. She continued striking heavily, whereupon the carpenter was ordered to sound the after wells, and he reported her to be making water in the after peak tank, all other wells and tanks giving the usual soundings. The chief engineer was instructed to start the steam pumps on the after tanks.

At 11 o'clock that same night the rudder had lifted 3″ in the flange in the wheel-house aft. The master then ordered the boats to be swung out and lowered to the edge of the bulwarks, ready for immediate use in case of an emergency, as the swell began to send in heavily, causing the vessel to strike heavily aft. Distress signals were then sent up from the steamer and were answered from the shore by guns; but it was impossible to render any assistance from the shore. At midnight the gale moderated, and orders were given to turn the engines ahead, but the engineer, after several trials, was unable to move them, owing to the propeller being imbedded in the reef about 3′. At half past 10 o'clock that night when the steamer struck, soundings were taken all round at low-water, and the least water found being only 9′ over the stern, there being deep water at all other parts. The carpenter continued sounding the wells and tanks at intervals until the vessel came off the coral reefs, nearly 38 hours afterwards. It was reported that the steamer made no water except in the after peak tank, where she was leaking at the rate of 3½′ per hour. On the 4th June the boats were lowered and all the native passengers landed, as there was no shelter on board. The master then engaged labour from shore in order to assist the crew in jettisoning and shifting the cargo from aft, forward. At noon efforts were made to float the vessel by heaving heavy strains on the chain cables, but they could not move her. The water in the meantime in the after peak tank was kept down by the aid of the steam pump. After another unsuccessful attempt had been made to move the engines, the master made an offer of £150 to the owners of the small tug *Dunkali* to be in attendance for three hours every rise of tide until she was floated off. At dawn the next day the master proceeded in a boat to the French gun-boat *Pengoine,* which was lying close at anchor, and asked the captain to run a stream and kedge anchors out, who at once gave the assistance of 12 men and an officer. With their help the crew succeeded in laying out the anchors with three 7″ hawsers of about 90 fathoms, bent on together, and the crew continued throwing coals overboard until high-water. At 1 P.M., by keeping heavy strains on the kedge and cables, and working the main engines slowly, the steamer was successfully got off without assistance, but in doing so three of the blades of the propeller were broken, and the steam steering gear was also disabled owing to the rudder being displaced. After weighing both anchors she steamed slowly off, and was re-anchored in the same place as before the casualty. Finding that the vessel was considerably damaged, and that nothing could be done at Obokh, the master proceeded to Perim harbour, where two surveys were held with the result that the steamer was recommended to proceed to the nearest port where repairs could be made good. But under the instructions of the owners she sailed for Aden, after having been temporarily repaired at Perim, and discharged the cargo for Obokh. Two surveys were further held on the *Carlton Tower* at Aden, when it was ascertained that the leak could not be repaired without docking, consequently, when the whole of the cargo was unloaded the vessel left for Suez, in which port she was afterwards docked and repaired. The Court recorded that the assessor was of opinion that the steamer was anchored properly, and that the cyclone broke upon her suddenly, giving little warning, at all events not sufficient to enable steam to be got up in the main boilers in time to prevent the vessel striking the ground and injuring her herself materially. Everything appeared to have been done that any one could expect to be done, before and after the casualty happened to the vessel, to prevent greater loss and damage. The assessor was also of opinion that the master's evidence in all the main points was corroborated by the other witnesses, and that no blame could be attached to either the master, officers, or crew of the *Carlton Tower* for the grounding of that steamer at Obokh, to the S.W. of Aden, on the night of the 3rd June during a cyclone. On a careful consideration of the evidence in this case the Court were of opinion that

the *Carlton Tower* was berthed in a safe position in Obokh roadstead, when on the evening of the same day a violent storm, which proved to have been a cyclone, burst very suddenly; that there was not sufficient time for steam to be got up in the main boilers so as to prevent the steamer grounding; and that all the evidence went to show that from first to last everything was done that could be done to save the vessel and lives, and the cargo as much as possible. Having regard to those circumstances, the Court found that no blame could be attached to the master, officers, or crew of the steamer *Carlton Tower* for the grounding of that vessel at Obokh on the 3rd June. The Court, therefore, had much pleasure in handing over to the master his certificate of competency.]

169. The British iron screw steamer SIMOOM [of Liverpool, 1,350 tons register, official number 81388J, from Cardiff to Aden, with a cargo of coals. On the 6th June the steamer, when in the Red sea, off Perim island, met with an accident to her machinery, the three blades of her four-bladed propeller breaking during heavy weather. On the following day she arrived at Aden, where she discharged her cargo. Value of damage to the machinery not reported. No damage to the steamer or cargo. No loss of life. (No official report of the accident reached this Department, nor was any information received from the Marine Authorities at Aden; the above details were compiled from private sources.)

170. The British iron screw steamer ASHBURNE [of Sunderland, 1,613 tons register, official number 68996], from Chittagong to London, with a cargo of rice. The steamer, it appeared, called at Point de Galle harbour, for the purpose of coaling. After filling up her coals she resumed the voyage on the 6th June; at 5 P.M. the steamer, whilst leaving the harbour in charge of a pilot, grounded on the outer ledge of the Mata Mata reefs (South coast of Ceylon), but, after having been aground for nearly two hours, she floated off. The master called a survey on the vessel and after an examination found that the shock had slightly started the No. 1 ballast tank forward, which made some water; the steamer might have proceeded to sea that same evening, but he thought it prudent to return to port for inspection. On the next day the Surveyor to the port, assisted by a master of a sea-going vessel lying in port, proceeded on board the *Ashburne,* lying afloat in the anchorage, in order to make an examination of that vessel, to ascertain the nature and extent of the damage. After a careful survey it was reported, *i.e.,* 42 hours afterwards, that the tank of the fore peak had filled, and also No. 1 ballast tank, the rest of the vessel being perfectly sound and dry, and the plating of the fore peak tank as perfect and strong as that of the outside. From a perusal of the report of the native divers who had examined the bottom, it was found that no fracture of the plating could be detected, but that the fore foot and keel near it were a little bent, from which the Surveyors inferred that the butts of the adjacent plates might have been started, and that was without doubt the extent of the injury sustained. It seemed that in July 1884 the *Ashburne* went through the No. 1 survey, on which occasion the whole extent of those ballast tanks was thoroughly examined and tested in the usual manner. The Surveyors at Point de Galle harbour reported that the master made a statement, wherein he said that, although what damage had been done by his vessel in 1881 (when the steamer on her homeward voyage stranded on the coast of Newfoundland) should not, and did not, warrant the recommendation in the present survey. They noted this protest on the part of the master, and having inspected and surveyed the nature and extent of the damage sustained, were of opinion that the *Ashburne* was quite safe and seaworthy, and, in addition to the recent examination specified above, farther led the Surveyors to advise the steamer to proceed at once, without discharging, to her port of destination. The master declared to the Marine Authorities that the steamer was ready, and he was anxious she should proceed on her voyage, as the *Ashburne*

under his charge was perfectly safe and seaworthy. Her bottom and tanks were thoroughly good and as sound as could be, except the recent damage; but had the master only known the situation and extent at the time it happened, he would assuredly not have returned to port, because he was satisfied as to the security of the vessel. He farther stated that the *Ashburne,* with the same ballast tank tops, carried a cargo of grain in 1881 from Newfoundland to The United Kingdom under much worse circumstances, the steamer having then stranded on the coast of Newfoundland and stripped off nearly the whole of the bottom plating; in that instance the cargo was landed without any damage at her destination. Finding, therefore, that the cargo was uninjured in the present instance and the leak not serious, the master determined to continue his voyage, and sailed accordingly on the 8th for London. Value of damage to the steamer and cargo not reported. No loss of life. (It was stated that the cause of the casualty was attributed to the heavy sea on the *Ashburne's* starboard bow, combined with the N.E. wind on her port quarter, preventing her answering her helm so as to straighten up for the channel. A formal investigation was held concerning the accident, but no information was obtained in this Department from the Marine Authorities. The above details were compiled from private sources.)

171. The Cingalese brig MIRAMATHAM [of Colombo, 88 tons register, official number 31083], from Colombo to Pámban, with a cargo of Fuller's earth, &c. The *Miramatham* had arrived at Pámban, and was lying at anchor right ahead of the brig *Thanaletchmy* for some days past, awaiting to discharge her cargo. On the evening of the 6th June the weather was cloudy, with drizzling rain, with a fresh breeze. At 8 P.M. a heavy squall rose from the S.W., and the *Miramatham* began pitching and rolling violently, and an hour afterwards she dragged her anchors and fouled the brig *Thanaletchmy,* which was lying about 135 yards to the southward of the Custom house, in the port of Pámban (Palks Strait). The *Miramatham's* jibboom was broken, the yards and jibsail carried away, iron bars bent, &c.; estimated value ₹145. No loss of cargo. No loss of life. (It was reported that there were only *two* men on board the *Miramatham* at the time of the casualty, and had there been more men to pay out chain, the accident would not have occurred.)

172. The British Indian wooden brig THANALETCHMY [of Pámban, 167 tons register, no official number], was lying empty, about 125 yards to the south of the Custom house at the port of Pámban (Palks Strait). At 9 P.M. on the 6th June, owing to a heavy squall, the brig *Miramatham* dragged her anchors and fell against the *Thanaletchmy,* thereby damaging the latter vessel's stern; one boat smashed, the railings round the poop deck destroyed; estimated value ₹150. The night was cloudy, with drizzling rain, and the wind was a fresh breeze from the S.W. No cargo on board. No loss of life. (The collision might have been avoided had there been sufficient men on board the brig *Miramatham* to pay out chain, or to drop a second anchor when required.)

173. The British Indian wooden brig MAGBOOL AHMED [of Chittagong, 205 tons register, official number 23 of 1884], from Bombay to Chittagong, with a cargo of kerosine oil. On the 7th June the brig, when off the port of New Goa, Panjim (Portuguese Territory), met with a strong cyclone from the southward, with heavy rain. At 6 P.M., the wind changed to S.W. with tremendous seas; she began rolling heavily and shipping large quantities of water over both sides, the jibboom was sprung, the bowsprit and maintopmast carried away, the foresail, foretopgallantsail and maintopgallantsail carried away. The brig, after labouring and straining heavily for two days, put back to Bombay on the 10th. Value of damage to the brig, ₹800. No loss of cargo. No loss of life.

174. The British iron ship VELLORE [of Liverpool, 1,631 tons register, official number 76356], from Liverpool to Calcutta, with a cargo of salt. On the 6th June the ship under pilotage charge and in tow of the steam-tug *Alexandra*

proceeded up the Hooghly river and anchored abreast Diamond harbour at 5-10 P.M. for the night. Early the next morning (the 7th) the pilot in getting underweigh found that the anchor had evidently hooked something, and being unable to purchase it, at 6-30 A.M., was compelled to slip the anchor with 30 fathoms of chain; Diamond harbour telegraph station bearing E. by S. ¾ S. and the Custom house N.W. by N. The value of the anchor and chain lost by the *Vellore* was about R1,278; it was reported that they were not recovered, but a new anchor and chain were supplied before the vessel left Calcutta at a cost of R639. No damage to the ship or cargo. No loss of life. (The casualty was accidental.)

175. The British wooden barque SIR LANCELOT [of Greenock, 886 tons register, official number 49556], from The Mauritius to Bombay, with 30 native deck passengers and a cargo of sugar, was overtaken by a cyclone in the Arabian sea when 250 miles S. W. of Bombay. On the 9th June, at 1 P.M., the barque was proceeding up the coast on a N.N.W. course at the rate of one knot an hour, the wind being light from N.E., with a confused sea and thick overcast sky and heavy rain, the master ordered all the sails to be stowed with the exception of the lower maintopsail. At noon of that day she was in latitude by account 15° 49′ N., longitude 69° 59′ E. About 8 o'clock that night there was very heavy rain, the wind N.N.E. hauling to the southward, the master changed the course to N.W. An hour afterwards the barometer stood at 29·25, a strong breeze sprung up from W.S.W., increasing rapidly till 10 P.M., when it was blowing a hurricane; the crew cut away the lower maintopsail; the foresail, the lower foretopsail, and the foretopmast staysail were blown away from the gaskets, and the vessel's course altered to N.E. by N. At midnight the barometer rapidly falling to 29·15, a violent hurricance still blowing, the wind being steady at S.W., no sail was set but spread a boat's sail in mizen rigging, when the master altered the course to N.N.W. On the 10th at 4 A.M. a terrific cyclone still raging and the sea most fearful, the vessel labouring excessively and shipping large quantities of water. The poor deck passengers (coolies returning from The Mauritius were advised at the beginning of the cyclone to go down below, but they preferred remaining on the main hatch with their belongings. But, as the wind increased in hurricane strength, the terrific seas, breaking on board, washed men, women, and children into the lee scuppers. All were then ordered by the master to make a hasty retreat to the forecastle below, losing all their provisions and effects. The maintopgallant rigging and backstays were carried away and the topgallantmast sprung; the pumps were attended to. Noon, barometer 29·03, wind W.S.W., the master steered N. by W. and kept on that course till 4 P.M. of the 11th. At noon of the 10th the gale was as violent as ever and the sea most fearful, and the storm, it seemed, was at its height. The vessel was hove-to for nearly 48 hours under bare poles, with a boat's sail in mizen rigging, the barque labouring excessively and shipping heavy seas. At noon of that day the vessel's position, both by observation and account, was latitude 15° 56′ N., longitude by chronometer 70° 36′ E. At 5 P.M., the weather hazy with variable cross sea running, the barque shipped a very heavy sea which stove in the side of the deck-house and washed away the pig-house and hencoop, one life boat, which was lashed on deck, having been torn from her fastenings by the terrific sea, was purposely broken up and thrown overboard by the crew to prevent its doing damage to the main rigging; the galley was filled with water, and most of the cooking utensils lost; the passengers' baggage smashed and washed overboard; and sails blown away from the gaskets. At 6 P.M., as the vessel lay to badly owing to the very irregular and high seas, the crew put a topgallantsail over the weather bow with a hawser fastened to the four corners attached to a warp as a drag, and it proved of great use in keeping the vessel's head to sea. At midnight the cyclone moderated. On 11th at 4 A.M.

barometer rose to 29·33. Noon, the barque in latitude by observation 17° 45′ N., and 71° 34′ E. longitude by chronometer, a heavy gale with a boisterous sea, and the vessel, with no sails set, but a boat's sail in mizen rigging, was proceeding up the coast on a N. by W. course at the rate of 1½ knots an hour; the wells were sounded and found free. The crew then bent the lower topsails, foresail and foretopmast staysail. At 3 P.M., a strong gale still blowing from S.W., the master set the lower maintopsail and kept away N.N.E., going at the rate of 5 knots an hour. The vessel rode through the hurricane to that drag line, but it was cut away at 3 P.M., as it was no longer required, it being impossible to haul it in. The barometer rose to 29·42 at 4 P.M. At 10 P.M. the wind the same, the crew set reefed foresail, and the speed of the vessel had increased one knot. At midnight a strong gale, with a tremendous sea, came from the S.W., the waves dashing on board continually about the deck and over the hatches, breaking adrift deck fittings, &c. The crew had to bail out the water. An hour afterwards the crew bent the upper maintopsail and set it. This continued till noon on the 12th, when a break in the weather was observable, and the barometer at 29·45 began to rise slowly. Great credit was due to the master and his officers for their splendid seamanlike exertions during the cyclone, which heralded the monsoon, and for their kind behaviour to the unfortunate deck-passengers. The lascar crew were wearied out with wet and fear, and were in an almost paralysed condition, calling aloud on *Allah*. During the stormy weather, especially in the lulls preceding the shifts of wind, a large number of small land birds settled on the vessel and vast numbers of grasshoppers, locusts, and gadflies. These insects, the master stated, settled on the backstays and rigging, and stowed themselves in a methodical manner, "head and stern" as close as they could pack. If specimens of the birds and insects had been caught and preserved they might have helped to determine from what land they were driven. But unhappily the master and officers had too much to do in attending to the vessel to allow them any time for natural history. The Agents of the *Sir Lancelot* heartily congratulated the master on the successful termination of his voyage. The barque, after having been surveyed and repaired at Bombay, proceeded on the 15th of August on a voyage to Calcutta. Value of damage to the *Sir Lancelot*, ₹16,154; cargo, ₹3,427. No loss of life.

176. The British iron screw steamer CARLTON TOWER [of London, 1,480 tons register, official number 85054], from Swansea to Basra, with a general cargo, arrived at Perim harbour (Red sea) from Obokh on the 6th June, after having stranded on to a coral reef there during the cyclone which occurred on the 3rd of that same month. On the 10th the *Carlton Tower* was lying moored in the harbour temporarily effecting her repairs, when the steamer *Westergate*, whilst going easy ahead preparatory to proceeding out of the harbour, just after weighing anchor came into collision with the *Carlton Tower*, striking the latter vessel's stern, thereby doing serious damage, *viz.*, starting the after bulwark rails; 5 plates bent and broken; and badly bending 2 angle irons of the fish back deck over the roof of the wheel-house. On the morning of the 11th the master called a survey on the vessel and after a careful examination by the Engineer Surveyor, assisted by the Superintendent of lighters (both belonging to the service of the Perim Coal Company), it was reported that the injury she had received by her collision with the steamer *Westergate* was great; the vessel's after bulwarks and the fish back deck over the steering-house were badly bent, broken and twisted; they advised that these plates be taken out and replaced by new ones, but that the damage caused was not of such a nature as to endanger the steamer in any way. The Surveyors, therefore, stated that there was no need for the vessel to undergo the repairs at Perim. Value of damage to the *Carlton Tower*, £500. No damage to cargo. No loss

of life. (The collision was caused by negligence on the part of the master of the steamer *Westergate*. No report of the casualty reached this Department, nor had any information been obtained; the above details were compiled from private sources.)

177. The British iron screw steamer WESTERGATE [of London, 1,179 tons register, official number 85063], from Kurrachee to Malta and London, with a general cargo. On the evening of the 10th June the steamer *Westergate* was proceeding easy ahead out of Perim harbour (Red sea) and immediately after weighing anchor when, owing to the negligence of the master, she struck the stern of the steamer *Carlton Tower*, which latter vessel was lying moored in the harbour, temporarily effecting repairs. The damage to the *Westergate* consisted, it was stated, of the stock of one anchor breaking short of, and one or two plates dented. The *Westergate* after the accident at once proceeded to sea. Value of damage to the *Westergate* not reported. No damage to the cargo. No loss of life. (No report of the casualty reached this Department, nor was any information obtained; the above details were compiled from private sources.)

178. The German iron screw steamer PRINZ GEORG [of Hamburg, 1,906 tons register, official number not reported], from The Mauritius to Bombay, with 103 native deck passengers on board and a general cargo. On the 10th June, at about 6 o'clock that morning, the steamer was boarded by a pilot (also an acting harbour master), and after an hour proceeded up Bombay harbour. The vessel went up as far as Cross Island full speed, after which the acting harbour master turned her into Princes' dock channel going half speed, and when pointed for the dock entrance she proceeded slow until half way through the channel, when the acting harbour master ordered the engines to be stopped with a view to allow her to lose some of her headway. There was a strong southerly wind blowing at the time and a nasty swell off the dock wall, and just 150 yards off Cross Island, the steamer's head being pointed right for the centre of it, the engines were put easy astern, and, as she did not seem to lessen her way, the acting harbour master directed her to go full speed astern, but still the little headway she had did not appear to take off, so, whilst some 100′ from the dock wall, the port anchor was let go, but she, notwithstanding, forged slowly ahead, her head going round to port and her stem struck the North side of the Princes' dock pier head, thereby breaking her stem 4′ above the water's edge, and three plates on each side in bow. The master of the vessel stated that every order of the pilot was carried out immediately; that the anchor was dropped instantly on directing the same; and that not a moment was lost in doing so. The *Prinz Georg* after having been repaired proceeded from Bombay. Value of damage to the steamer, ₹7,000. No loss of cargo. Little or no damage was done to the centre pier of the Princes' dock. No loss of life.

[A Departmental Committee of Inquiry was held in the office of the Port Officer, Bombay, on the 12th June, to inquire into the cause of the collision of the steam-ship *Prinz Georg* with the Princes' dock. The Committee recorded that the collision was caused by the vessel's head having canted to port instead of to starboard, as it should have done and was expected, when the engines were moved first half speed, then full speed astern, together with a gust of wind which was quite unforeseen, striking the vessel on its port quarter, when her bow was close to the dock entrance. After carefully considering the evidence, the Committee were of opinion that no blame was attributable to the acting harbour master for the casualty, which was purely accidental.]

179. The French iron screw steamer ROUEN [of Havre, 2,670 tons register, official number not reported], from Toulon to Saigon, with troops and 6 horses on board. The steamer had on board 90 horses, but when in the Arabian sea on the 31st May, 84 horses were washed away off her decks by the heavy cyclone she had encountered. She put into Colombo for the purpose of coaling, and,

after filling up her coals, she resumed the voyage the next day. On the 11th June, when in the Indian ocean, the exact spot not reported, the steamer met with an accident to her machinery, the crank shaft breaking. She put into Penang where, after having effected her repairs, she safely proceeded to her destination. Value of damage to the steamer and machinery not reported. No loss of life. (The cause of the casualty was not reported. No official report reached this Department, nor any information could be obtained from the Marine Authorities of Colombo; the above details are from private sources.)

180. The Native padow ROOPAREL [of Bhávnagar, 12 tons register, official number 134, age 40 years], from Bhávnagar to Broach, with a cargo of cotton in bales. On the 11th June, when in the Narbada river, about 16 miles West of Broach (Gulf of Cambay), in consequence of heavy ebb-tides she parted from her anchor and drifted on to a sand bank at 1 A.M. and sprung a leak. The padow was subsequently recovered. Value of damage to the padow, ₹200; cargo worth ₹1,900 was lost. No loss of life.

181 & 186. The Siamese wooden barque SIAM [of Bankok, 295 tons register, no official number], from Calcutta to Bankok, in ballast. On the 10th June the barque under charge of a pilot and in tow of the steamer *Pilot* proceeded down the Hooghly river. At 3 P.M. on the 12th, it being the first of the flood-tide, and the wind South, the pilot in attempting to proceed into the Eastern Channel with a moderate sea, let go the anchor, but the chain parted a little above the anchor in 7 fathoms of water; the Intermediate light-ship bearing N.E. by E. ½ E., 7 miles distant. Sail was again set, but at 5-30 P.M. the same day the pilot observing that the barque had drifted on the flood-tide a long way up the channel, and the wind with sea being more moderate, the other anchor was let go in 6 fathoms of water about 3 miles W. by N. ½ N. of the Intermediate light-ship. The vessel rode safely to her anchor throughout the night, when on the following morning (the 13th) the sea becoming very rough, the pilot found it impossible to get in any chain, and the barque labouring very heavily, it was deemed unsafe to remain anchored, so, with the consent of the master, the anchor, with 45 fathoms of chain, was slipped and the *Siam* was compelled to return to Diamond harbour, in consequence of the vessels' rigging, sails, and running gear being found in a very defective condition, and it was considered dangerous to proceed to sea even if the barque had her complement of anchors. The master in the meantime sent the first officer up to town (Calcutta) to make arrangements for the purchase of the vessel's equipments. On the 25th the barque, after being well supplied with anchors, chains, sails, &c., left Diamond harbour for sea in tow of the steamer *Columbus*. The anchor and chain lost by the *Siam* had not been recovered. The value of the lost articles was about ₹883. Value of damage to the barque, ₹2,212. No cargo on board. No loss of life. (The casualty, the master stated, was owing to the defective state of the vessel's equipment.)

182. The British iron ship KNIGHT COMMANDER [of Liverpool, 1,435 tons register, official number 48802], from Liverpool to Calcutta, with cargo of salt. On the 12th June the ship in charge of a pilot and in tow of the steam-tug *Hunsdon* was proceeding up the Hooghly river. At 5-30 P.M. the same day, whilst coming to an anchor at Garden reach abreast the India General Steam Navigation Company's dock, the pilot let go the starboard anchor, but no chain ran out, and, as the anchor did not touch the bottom, the pilot, on bringing the *Knight Commander* up with her port anchor, hove in on the starboard chain, and found that it had parted. The windlass was a patent one, and the first officer and the carpenter asserted that it was unlocked, so that there was no means of ascertaining the cause of the chain parting. The anchor and chain lost by the *Knight Commander* had been recovered and cost ₹150.

No damage to the ship or cargo. No loss of life. (The accident was caused by the carelessness of the crew.)

183. The British iron screw steamer THAMES [of Glasgow, 2,130 tons register, official number 85898], from Melbourne to London, with 103 passengers on board and a general cargo. There appeared, without doubt, to have been two distinct cyclones in the early part of June. The one about the 1st to the 3rd occurred in the Gulf of Aden, the other from the 9th to the 12th not very distant from Bombay, probably about 300 miles off; but it was the former of these that was of such great intensity. On the 12th June the steamer, when proceeding on a N. 56° W. course, with fore and aft sails set, in the Arabian sea in latitude 8°25′ N., longitude 61°50′ E., experienced a cyclone from the W.S.W. with very heavy S.W. seas; at 1 P.M. she met with an accident to her machinery, the high pressure piston breaking. She immediately returned to Colombo, but whilst at sea the Australian mails were transferred to the Messageries Maritimes Company's steamer *Yangtse*, which was then proceeding to Suez from China. A spare high pressure piston, which was on board, was fitted, and, after having all other repairs completed, she proceeded from Colombo, after being detained for five days. Value of damage to the steamer, machinery, and cargo not reported. No loss of life.

184. The British iron screw steamer GULF OF PAPUA [of Greenock, 1,316 tons register, official number 87402], from Liverpool to Bombay, with a cargo of coals. There were without doubt two distinct cyclones in the early part of June. The one about the 1st to the 3rd occurred in the Gulf of Aden, the other from the 9th to the 12th not very distant from Bombay, probably about 300 miles off; but it was the former of these that was of such great intensity. On the 11th June, when the steamer was in latitude 17° 54′ N., longitude 65°13′ E. (Arabian sea), the wind increased to a very heavy hurricane from the E.N.E. with heavy mountainous seas. At 4 A.M. on the 12th the vessel, running dead before the gale, with topsails and foresails set, began shipping very heavy seas, which damaged the gig and engine telegraph; large quantities of water filling the chart and wheel-houses and the stokehole. At 5 P.M. she shipped another heavy sea, but did no damage. Value of damage to the *Gulf of Papua*, ₹500. No damage to the cargo. No loss of life.

185. The British iron screw steamer PEMBA [of Glasgow, 987 tons register, official number 76803], from Calcutta to Rangoon, Maulmain, and The Straits, with 120 passengers and a general cargo. The master stated that on the 13th June the steamer was sailing along the Burma coast, the night was dark and overcast, and the wind moderate from South, there being a slight swell on from the N.E., but the sea otherwise was smooth. The third officer had charge of the bridge, and saw the Alguada reefs light-house about 8-40 P.M.; the vessel proceeded safely along without any incidents whatever until 11-25 P.M. Soundings were taken every quarter of an hour, and the vessel steered on a S.76° E., magnetic course, which course was continued up to the time the accident occurred. At 15 minutes past 11 o'clock that night the lead was hove, and the third officer reported no bottom in 10 fathoms; and ten minutes afterwards no bottom at 12 fathoms, whereas the steamer actually had been in 10 fathoms soundings at least an hour previous, and with the water gradually shoaling the *Pemba* unhappily struck the ground heavily forward in 3 fathoms of water and then slightly several times on the southern extremity of the Baragua flats in latitude 15° 33′ N., longitude 95° 02′E., Gulf of Martaban (Burma coast). The master immediately rushed on the bridge and gave the order to stop and reverse the engines full speed; the engines were kept going, and it being then about high-water, on the steamer's head turning due South the water deepened to 4 fathoms, and she came off after having been aground for ten minutes. Soundings were then reported between 5 and 6 fathoms. The wells were sounded every

quarter of an hour for some four hours afterwards, and it was found that she made no water anywhere; she proceeded on her voyage to Rangoon. No damage to the *Pemba*. No loss of cargo. No loss of life. (It was reported that no Court of Inquiry was held concerning this accident, but the cause was undoubtedly owing to the master having been misled by the third officer reporting wrong soundings immediately before the casualty happened, when he must have had soundings in 12 fathoms an hour previously.)

186. See SIAM No. 181.

187. The British iron paddle steamer ABALA [of Calcutta, 152 tons register, official number 10126] was employed as a ferry steamer plying between Calcutta and Ulabaria. On the 15th June, at about 3-30 A.M., whilst proceeding up the Hooghly river, she fouled No. 11 swinging buoy abreast Baboo ghât, just astern of the steam-tug *Victoria*. Slight damage was done to the *Abala;* her centre bracket was carried away and one stanchion broken. The buoy was damaged, but to what extent it was not reported. The Agents stated that from private enquiries instituted it seemed that the serang did not exercise due caution in the navigation of the steamer *Abala*. No cargo on board. No loss of life.

[A Departmental Committee of Inquiry was held in the Port Commissioners' Buildings, Calcutta, by the Deputy Conservator on the 23rd June, concerning this collision, and it was found that the serang was to blame for having attended to the orders of the engineer, who interfered in the navigation of the steamer. No official report of this accident reached this Department, nor were the proceedings and report of the Departmental Committee of Inquiry received from the Port Commissioners; the above details were compiled from private sources. The Port Commissioners stated that the occurrence was of so trivial a nature that it was not worth while reporting it; if, however, the Wreck Department desired to have a copy of the proceedings and report of the Departmental Committee of Inquiry, the Commissioners suggested a clerk being sent to make copies.]

188. The British iron screw steamer PETRIANA [of London, 1,086 tons register, official number 81600], from Vizagapatam and Cocanada to Dunkerque, with a cargo of jaggery. On the 16th June the steamer whilst in the Arabian sea (exact position not given), having fallen short of coals, 356 bags of jaggery were consumed for fuel. She put into Aden on the evening of the 6th July, and was 21 days going from Point de Galle to Aden; the vessel left again after coaling. No damage to the steamer. Value of damage to the cargo, ₹2,136. No loss of life. (No official report of the casualty reached this Department, nor was any information received from the Marine Authorities at Aden; the above details were compiled from private sources.)

189. The British iron screw steamer THAMES [of Glasgow, 2,130 tons register, official number 85898], from Melbourne to London with 103 passengers on board and a general cargo. On the 15th June the steamer when in the Arabian sea (exact position not given), met with an accident to her machinery, the high pressure cylinder breaking; she put into Aden, and after having been repaired, she resumed her voyage. Value of damage to the steamer, machinery, and cargo not reported. No loss of life. (The cause of the casualty was not reported.)

190. The British iron ship KNIGHT OF THE GARTER [of Liverpool, 1,434 tons register, official number 78724], from Liverpool to Calcutta, with a cargo of salt. It appeared that the ship grounded about 2¼ miles S.S.E. of False Point light-house on the 12th May, but was towed off by the tug *Retriever* on the 16th, and arrived in town (Calcutta) on the 18th. The vessel on the 16th June, after having discharged all her cargo, was being transported from No. 5 docking buoy in charge of an assistant harbour master preparatory to proceeding

to the Hooghly dry dock, Howrah, for the purpose of examining and repairing the bottom of that vessel, she having bumped heavily on the sands and made water in the forward compartment. At 3-30 P.M. the vessel was hauled alongside parallel to the bank for the purpose of being berthed in the dock, and whilst lying in comparative slack water, a sudden puff of wind from the eastward drove her stern ashore bringing what tide there was broad on her starboard bow, which caused the inshore line to part, and the *Knight of the Garter* swung round before the assistant harbour master could let go the hawser. Eventually an anchor was dropped and the vessel swung round again, when she was placed at No. 5 buoy, it being too late to dock that afternoon. The ship did not remain aground, being a rising-tide she slipped off immediately. A link of the starboard chain cable broke, rendering a 15 fathoms length of chain useless; two 12″ single luff tackle blocks and a large snatch block broken and destroyed; a small steel warp and a 5″ Manila line cut and broken. Value of damage to the *Knight of the Garter,* ₹500. No cargo on board. No loss of life. (The casualty was accidental.)

191. The British iron ship STRONSA [of Liverpool, 2,000 tons register, official number 86225], from Calcutta to London, with a general cargo. On the 15th June the ship in charge of a pilot and in tow of the steam-tug *Clive* proceeded down the Hooghly river until 4 P.M., when she anchored for the night at Diamond harbour. At 1 P.M. of the 16th she weighed anchor and proceeded down in tow, but when abreast the Upper Western Haldia buoy the ship took a heavy sheer to port, causing the steamer also to sheer to starboard, and there being a very strong eddy-tide the *Stronsa* parted both hawsers, but recovered herself in time a little to the westward of the Upper Western Haldia buoy. The ship slightly grazed the bank with her bilge, but never stopped moving, and on setting the foresail and foretopsail, she sailed into mid-channel, all the other—fore-and-aft—sails being previously set. The tug afterwards passed hawsers and took her in tow again and proceeded to Mud point where she anchored at 3-45 P.M., and early the next morning she safely got to sea. The pilot stated that at the time of the accident every attention was being paid to the steering and when nearest the bank the leadsman, who was in the chains, gave the least water as a quarter less 4 fathoms. The master stated that as the ship kept moving along the whole time he could not say for a certainty whether she touched the ground or not. No damage to the ship or cargo. No loss of life. (The accident was owing to the heavy eddy-tides which prevailed in that part of the river.)

192. The British Indian dingy LUTIBSHY [of Kurrachee, 19 tons register, official number 120, age 25 years], from Kurrachee to Keti bandar, with a general cargo. On the 18th June when between the Duba and the Seesha, river mouths of the Indus (Sind coast), the dinghy suddenly capsized at 5 P.M. in consequence of strong winds. She was subsequently recovered, and sustained damage to the amount of ₹300; cargo worth ₹200 was damaged and the remainder saved. No loss of life.

193. The British iron screw steamer KHANDALLA [of Glasgow, 1,318 tons register, official number 71696], from Calcutta to The Straits *viâ* Rangoon and Maulmain, with a general cargo. The steamer left No. 1 Calcutta moorings under charge of a pilot and proceeded down the Hooghly river at 8 A.M. on the 18th June. The pilot stated that at 12-35 P.M. when a little to the northward of No. 1 track, Eastern Gut, James and Mary's, the steam-tug *Columbus,* which was proceeding up the river, persisted in keeping in No. 2 track, and would not port sufficiently to enable the *Khandalla* to take either Nos. 2 or 3 tracks; the pilot of the steamer thereupon had to give way, and was compelled to port the helm to prevent her running the tug down, and before the *Khandalla* could recover herself she grounded on the sands, with the No. 1 track marks a little open, the

tide rising from 7′ to 8′ at the tidal semaphore as the vessel took the ground. The *Khandalla* floated at 3-40 P.M. during a thick squall, but whilst the pilot was endeavouring to get her round, she took the ground again within a quarter of an hour. At 4-10 P.M. she came off without assistance and proceeded to Diamond harbour, where she anchored for the night. The steamer was aground for 4 hours. No damage to the *Khandalla*. No loss of cargo. No loss of life.

[A Departmental Committee of Inquiry was held in the office of the Port Officer, Calcutta, on the 28th July, to inquire how far the master (also a licensed pilot of the Hooghly river) of the steam-tug *Columbus* was to blame in the matter of the grounding of the steamer *Khandalla*. The Committee recorded that, having assembled pursuant to citation, the pilot's report of the *Khandalla* was read and the papers and correspondence relating to the case filed. The master of the tug, a licensed pilot of the port, on being called stated that the tug was proceeding up the Hooghly river and when just below the *Waterloo* wreck buoy, the *Khandalla* was first sighted, the weather at that time being thick with rain and squalls, and the wind was from the N.E. The tug intended to pass the *Khandalla* on the port side, and the master accordingly hauled the *Columbus* in close round the buoy and went up between Nos. 4 and 3 tracks, Eastern Gut, James and Mary's; and it being the first of a rising tide, the tug slightly slued to starboard, the marks were indistinctly visible on account of the thick rain. The two vessels passed each other about the Index piles at a distance of over 50′, and the master of the tug stated that he did not expect to have met the *Khandalla* at that part of the river, and within 4 minutes afterwards the casualty happened. The master of the tug did not observe any signal from the *Khandalla* when he sighted her coming close, and appeared to be end on, showing her port side, the master of the *Columbus* did not think it would have been prudent for his vessel to have gone closer into Hooghly point without running risk to the vessel, although it might have been possible. The master of the tug stated that according to the Rules of the Road the *Khandalla*, which vessel was proceeding against the tide, should have eased down; it would have been possible for a small vessel like the *Columbus* to have put her head round against the flood-tide below the *Waterloo* wreck buoy, when it was discovered that the tug was likely to give the *Khandalla* so little room in the Gut; but when the master of the *Columbus* saw the *Khandalla,* he thought she was stopped and waiting for water, and the tug therefore hurried up to get across the Gut before she could enter. The witnesses for the prosecution were then called and examined, and on conclusion of their evidence the pilot of the *Khandalla* asked to be allowed to bring an expert in for a nautical opinion concerning the meeting of steam-ships when about to pass in the Hooghly river, and on permission being given he called a senior master pilot and questioned him in presence of the Committee. The Committee then directed the parties to withdraw in order that they might consider their finding. The Committee after a careful consideration of the evidence in this case, were of opinion that the grounding of the steamer *Khandalla* was caused through the meeting of two steamers—the *Khandalla* and the *Columbus*—in a very narrow channel; the weather was at the time thick and rainy, and had the *Khandalla* eased down when above Nurpur point she would probably not have met the *Columbus* in so narrow a place. The pilot of the *Khandalla* was, no doubt, under the impression that the tug would have taken the Western Gut, but the master of the *Columbus* seemed to think there would not have been sufficient water. By the evidence the master (also a licensed pilot of the Hooghly river) did not appear to have given the *Khandalla* quite as much room as he might have done with safety. The Committee, therefore, considered that both parties were more or less to blame.]

The Port Officer recorded that the grounding of the steamer *Khandalla* was

unimportant, and no damage was done; but the defence put forward by the pilot of the *Khandalla* showed that he disregarded or misapprehended Rule 3, chapter IV of the Rules for the guidance of Running Pilots, which laid down that when two steamers, with or without vessels in tow, met in a narrow channel, the one going against the tide should slacken her speed until the other had cleared the difficulty. The *Khandalla* was steaming against the tide, and the casualty took place on the James and Mary's owing to there being barely room for the two vessels to pass in the channel. The pilot stated that he expected the tug to give way to him, but the rule appeared to be quite explicit, and it was noticeable from the evidence that the pilot's witness, called as an expert, did not bear him out. The Port Officer considered the pilot of the *Khandalla* to blame for his misconception or ignoring of that rule, and asked the Government, should they concur in his view, to reprimand and caution the pilot, who was a good and careful officer, and since the year 1879 had no accident for which he had been held to blame.

The Lieutenant-Governor of Bengal observed that it appeared that the *Khandalla* in charge of a pilot was steaming down the Hooghly river against the tide, whilst the steam-tug *Columbus* was proceeding up the river with the tide. They met in the James and Mary's at a point where there was barely room for two vessels to pass each other, and the *Khandalla* went aground. Had she eased down above Nurpur point she would not have met the *Columbus* in so narrow a place, and the accident would not have occurred. The pilot, however, seemed to have been under the impression that the tug would take the Western Gut and thus leave ample room for him to pass. The master of the *Columbus,* on the other hand, appeared to have thought that there was not water enough in the Western Gut, and therefore did not take that course. From the evidence it seemed to the Committee that the master of the tug did not give the *Khandalla* quite as much room in the Eastern Gut as he might have done with safety. The Committee, therefore, considered that both the master of the tug and the pilot of the *Khandalla* were more or less to blame in the matter. The Lieutenant-Governor, whilst accepting the finding of the Departmental Committee of Inquiry, agreed with the Port Officer that the pilot of the *Khandalla* was to blame for his disregard or misapprehension of Rule 3, chapter IV of the Rules for the guidance of Running Pilots, which laid down that when two steamers, with or without vessels in tow, met in a narrow channel, the one going against the tide should slacken her speed until the other had cleared the difficulty. Had the pilot of the *Khandalla* observed that rule in the present case, the accident would not have happened. It appeared from the evidence that some misapprehension existed as to the interpretation of the rule, and that it was supposed not to apply to a tug steaming up the river single-handed. The rule, however, was quite explicit, and made no exception in the case of single-handed tugs, and His Honour directed that the pilot of the *Khandalla* be cautioned to adhere more carefully in future to the rules laid down for his guidance. The Lieutenant-Governor also desired that the decision of Government in this case with regard to the interpretation of Rule 3, chapter IV of the Rules for the guidance of Running Pilots, be published in General Orders, to the members of the Pilot Service.

194. The British iron screw steamer HIMALAYA [of Glasgow, 910 tons register, official number 58321], from Rangoon to Madras, with a general cargo and 9 saloon and 718 native deck passengers on board. The steamer left Rangoon on the morning of the 17th June, and nothing of importance occurred until the following day, when passing to the southward of the Irrawaddy flats she experienced a furious gale. The master stated that at noon of the 18th the steamer's position by dead reckoning was latitude 15° 29′ N., longitude 94° 17′ E., when there was a moderate breeze from South and West, and fine clear weather;

there was also a heavy swell, from the same quarter. An hour afterwards the wind increasing, a heavy sea struck the port life-boat, breaking her back, when the crew cut it adrift. At 8 P.M. the gale and sea rapidly increased in strength, and the vessel began shipping large quantities of water over all. Midnight: similar weather, but the steamer was rolling and straining severely. On the 19th at 9-30 A.M. a strong gale with a tremendous sea came from the S.S.W. veering to S.W.; the bowsprit was carried away close off by the knight heads, whilst the crew were trying to get the bowsprit on board, it began striking against the bow, so they cut it adrift and secured the foretopmast. Noon, in latitude 17°09′ N. longitude 92° 12′ E., squalls were as violent as ever and the sea very heavy. At 5 P.M. a fearful sea struck the starboard cutter, washing her away and snapping off the davits by the rail. Shortly afterwards the port cutter was destroyed, carrying with it the after davits; the crew secured the forward end, one piece of the topgallant bulwark going with it. Midnight, fresh gales with heavy irregular sea, the vessel rolling and straining excessively. At daylight on the 20th the wind S.W. changing to west; the steamer unmanageable; found the fore awning boom carried away. Noon, vessel's position by dead reckoning latitude 17° 19′ N., longitude 90° 32′ E.; a fresh gale blowing with heavy cross sea. Midnight, strong breeze with heavy sea. On the 21st at 4 A.M. the wind shifting suddenly from S.W. to W.N.W. and back to W.S.W., strong gale, weather cloudy, and sky overcast; the steamer shipped water in the waist. Midnight, gale moderating but the sea still heavy. On the 22nd at 4 A.M. hard gales from S.W. with terrific sea and constant rain, and the vessel labouring and straining excessively; the truss bolt on foreyard carried away; at 11 A.M. the starboard life-boat was destroyed and washed away, and a tremendous sea started the chart-house. Midnight, the gale moderated to a fresh breeze, the sea rapidly going down. The bilge-pumps and the hand-pumps had to be kept working for some time to clear the steamer of water. At 1 A.M. on the 23rd the master began to steer to the westward and soon afterwards he set his course for Madras. The steamer was subsequently supplied with 4 new boats, 4 davits, a spar for the bowsprit and some sails, but there was no survey called on the hull. Value of damage to the *Himalaya*, R6,000. No loss of cargo. The crew 78 men and 727 passengers. Three native deck passengers died from injuries received during the gale; the chief engineer had a fall and fractured the bone of his nose.

195. The British iron ship GLENLUI [of Liverpool, 1,847 tons register, official number 87944], from Calcutta to Liverpool, with a general cargo. On the 19th June the ship in charge of a pilot and in tow of the steam-tug *Retriever* was proceeding down the Hooghly river. At 9 A.M. when just below Hog river point, preparatory to turning round to anchor at Fisherman's point, the tide being half-ebb, going dead slow at the time, the tug suddenly shoaled from $7\frac{1}{2}$ to $5\frac{1}{2}$ fathoms, and immediately afterwards to $4\frac{1}{2}$ fathoms. Thereupon the pilot ordered the helm to be put hard-a-starboard and directed the tug to go round, but before the steamer could get the ship round, the *Glenlui* grounded on the mud flat at the upper part of Fulta reach in $3\frac{3}{4}$ fathoms of water; the Public Works Department bungalow at Fisherman's point bearing E. $\frac{1}{2}$ N., Fulta point open with Dhaja point, and Hog river point N. $\frac{1}{2}$ W. The steamer, after the accident, was stopped and the hawsers cast off. At 2-30 P.M. on the flood making the tug went ahead of the ship, and after passing hawsers she floated off, and proceeded to Kalpi, where she was anchored for the night. The vessel was aground for 5 hours. No damage to the ship or cargo. No loss of life. (The *Glenlui* just about turning to anchor grounded on the mud flat extending a short way off the river bank, and floated uninjured as soon as the flood-tide made; the pilot had the lead going, and seemed to have paid attention to his duty. This was a kind of casualty that was liable

to happen from time to time, and there did not appear to have been any blame attached to the pilot, he slightly over-estimated his distance off the low shore.)

196. The French wooden barque ESBROUFE [of Nantes, 371 tons register, official number 2995], sailed from Chittagong on the 6th June, bound for Guadaloupe, with a full cargo of rice, and on the 9th the pilot had to anchor her in the lower part of the Kornafuli river owing to strong southerly winds with heavy rain. On the morning of the 20th the weather being clear and fine and the wind gentle from S.E., the pilot proceeded with the vessel, and at 7 A.M. he left her outside the bar. The master then sailed down the coast for about 22 miles, and finding the weather thick, he anchored her at 11-45 A.M. in 6½ fathoms of water. At 8 P.M. of the 20th she weighed anchor, there being a strong breeze, with generally a threatening appearance, from S.S.W. quarter with a heavy sea, and proceeded under all plain sail on the port tack. On the following day at 1-30 A.M, when to the southward of the South Patch reefs, Kutubdea banks (Chittagong coast), there were strong southerly winds, and the weather being squally with heavy blinding rain, rendering it impossible to see the nearest objects, the vessel was hove-to on the starboard tack. At 11 A.M. a gale set in from S.S. W., the crew stowed all the small sails, and the barque tacked, but at 7-30 P.M. the wind and sea rapidly increased in strength from the S.S.E., the topgallantsails were furled and she was put on the port tack. At 4 A.M. of the 22nd the course of the barque was altered to the E.S.E., with all sail as long as practicable, the weather being fine with southerly winds and a heavy sea; but at 7 A.M. as the squalls were violent from South, with a heavy sea from the same direction, the crew were ordered to furl the gaff topsail, the flying jib, the topgallant staysail and spanker. At 10 A.M. the direction of the wind was the same, with very thick blinding rain. At 10-15 A.M. wind South blowing with hurricane force, the barque heeled over to port, and the heavy seas dashing on board filled the deck of the vessel with water, the centre would seem to have passed her position at this time, the barque became unmanageable and would not answer her helm, the master then directed the tacks and sheets to be let go and to cut away everything that would assist in righting the vessel. She remained in that position for a quarter of an hour, during which time all the sails were blown away, except the lower maintopsail, and the lower foretopsail yard was carried away. The vessel shipped large quantities of water on the port side, filling the cabin and store-room. The wind blowing in heavy gusts and the sea very troubled, when the barque was kept under lower maintopsail. The *Esbroufe's* position being untenable the master assembled the crew aft, and after acquainting them with the state of affairs, it was decided with one accord, and for the safety of all concerned, that the vessel should make sail for the nearest port. At noon of the same day the master steered North for Chittagong. The crew in the meantime were ordered to clear away the wreck and they bent a new foresail, trysail, jib and flying jib. On the 23rd at 3 A.M. sighted Kutubdea light bearing East, distant 18 miles, when the course was altered to N. E. ¼ E. An hour afterwards the Norman Point lights were visible bearing E. by S., when the master kept close to the wind, which was from the S.S.E., till she was 5 miles distant, when he anchored the barque. The wells were sounded every watch and found clear. At noon the barque was boarded by a pilot, and proceeded up the Kornafuli river, and was safely anchored in the harbour at 6-30 P.M. the same day. On the 25th of that same month the Surveyor to the port, assisted by a Shipwright Surveyor, proceeded on board the barque *Esbroufe* in order to make an examination of that vessel to ascertain what damage she had sustained by the cyclone in the Bay of Bengal, having put back to Chittagong with loss of foresail, foretopsailyard and gear, and split other sails. After a careful survey the

Esbroufe was reported to have been apparently undamaged, and showed no signs of having strained. At 2-30 P.M. the wells were sounded and $4\frac{1}{4}''$ of water was found in them; they therefore sealed up the pumps after seeing her pumped out dry. The Surveyors reported that when they unsealed the pumps they observed that she had made the same water in two hours. The mizentopmast staysail split and torn and the canvas missing, to be repaired with 15 yards of good canvas; the maintopmast staysail split and the canvas missing, to be repaired with 35 yards good canvas; the maintopgallant sail split and the canvas missing, this sail being too old for repairs, should be sold; the mainsail split and the canvas missing to be sold as being unfit for repairs; the foretopmast staysail torn and the canvas missing, to be repaired with 30 yards of good canvas; the outer jib torn and the canvas lost, to be sold as being too old and worn to admit of repairs; the upper foretopsail and the foot rope carried away and the canvas torn and missing, to be repaired with 50 yards of good canvas; the lower foretopsail, foot and leach ropes carried away and the canvas split and missing, to be repaired with 6 fathoms of bolt rope, and 30 yards of good canvas; the foretopgallantsail split and the canvas torn and lost, to be sold as being too much worn out for repairs; the upper maintopsail split and canvas missing, to be repaired with 29 yards of good canvas. The Surveyors reported that from the statement of the master it appeared that the mizenstaysail and the foresail having been split it was necessary to cut them away, and that those two sails were lost overboard; a quantity of running gear was cut and lost overboard, and the lower foretopsail yard which was on deck was carried away at the slings, the yard being in two halves. The barque had remaining on board one suit of sails almost new. The sails that had been lost and damaged were part of the vessel's second best suit, and the Surveyors were of opinion that if they were repaired they would do well enough for a fine weather suit. They however, considered that as the vessel would have to beat down the Bay of Bengal against the S.W. monsoon, it would be advisable that a new foresail, mainsail, and lower topsail be supplied and fitted. The estimated cost of materials, labour for repairing the sails, freight and other charges for supplying a new foresail, mainsail, jib, mizenstaysail, and two new topgallantsails in the place of those condemned would be between R1,500 and R2,000; the cost of a new topsail yard, *viz.*, R150, was included. If the new foresail, mainsail, and the two lower topsails were supplied, the vessel could sail for her destination at once, and repairs would afterwards be effected to the second best suit at sea; but should the repairs be made at Chittagong they might be executed under the Surveyors' supervision. On the 9th July the Surveyors again visited the vessel for the purpose of finally surveying her. They found that the vessel had been supplied with a new lower foretopsail yard, a new foresail, a new lower maintopsail, a new jib, and a new maintopmast staysail. The upper fore and maintopsails, and the foretopmast staysail had been repaired and were in serviceable order. The barque had one complete and good suit of sails bent except the royals and the mizenstaysail; she had on board the following spare sails:—one foretopsail, two lower and two upper topsails, one foretopmast staysail, one jib, one spanker, two royals, one flying jib, studding sails, one old mainsail, two old topgallantsails, and was supplied with about 200 yards of good canvas for repairing purposes, and had sufficient cordage and other stores for contingencies. The vessel made no water, and the Surveyors were of opinion that the *Esbroufe* was strong, staunch, and fit to proceed on her voyage to the West Indies. Value of damage to the *Esbroufe*, R2,500. No loss of cargo. No loss of life. (It was reported that no Court of Inquiry was held at Chittagong cited by the Government or by the French Consul concerning this casualty, but no doubt one assembled at the return of the barque at Nantes; the result of which was not known to the Wreck Department.)

197. The British iron ship COMPTA [of Liverpool, 998 tons register, official number 30621], from Bassein to The Channel, with a cargo of rice. The ship left Bassein (Burma) in charge of a pilot and proceeded safely down the river, anchoring at the entrance. Nothing of importance occurred until the 23rd June. On that day the vessel was lying at anchor with 45 fathoms of chain cable out in $6\frac{3}{4}$ fathoms with the N.E. point of Hengie island bearing N. by E.$\frac{1}{2}$ E., inside the bar in the Bassein river (Burma coast). At 4 P.M. the weather was squally and threatening, with a considerable swell on, with a fresh breeze from the S.W., and the tide being then last quarter ebb. The ship suddenly shot ahead of her anchor, and at the same time the starboard chain snapped at the hawsepipe, thus losing the anchor. The pilot immediately made sail and ran the vessel into a safe berth off the N.E. side of Hengie island, where she was safely anchored. On the following day the master and the pilot proceeded up to town to procure another anchor and chain. The ship after having been detained for a week, an anchor and chain were obtained from Calcutta. The anchor and chain lost by the *Compta* were replaced at Bassein, and cost R2,067, but the lost articles, the value of which was R1,000, were not recovered. No damage to the ship or cargo. No loss of life. (The accident was unavoidable.)

198. The British iron ship IDOMENE [of Liverpool, 1,390 tons register, official number 69371], from Calcutta to Bassein, in sand ballast. The master stated that the ship left the Sandheads on the 8th June for Bassein, but when in the Bay of Bengal, exact position not given, encountered very heavy weather; the master was working to windward when on the 25th of that same month finding that he could not beat to windward owing to contrary winds and heavy head seas, the vessel being too light, determined to put into the port of Akyab. On that day the upper maintopsail was carried away, the jibboom damaged, the foretopsail, upper foretopsail, and maintopgallant yards carried away. On the 30th the vessel was towed into Akyab by the British India Steam Navigation Company's steamer *Coconada* in distress. On the 4th August, after having repaired the damages she left for Bassein, and cleared the latter port for The Channel on the 31st August with a cargo of rice. Value of damage to the *Idomene,* R6,750. No cargo on board. No loss of life.

199. The British iron screw steamer DISCOVERER [of Liverpool, 1,455 tons register, official number 76484], from Bombay to Liverpool, with a general cargo. On the 26th June the steamer had completed loading her cargo, and at 5 P.M. that same afternoon, whilst being hauled out of M berth, Princes' dock, Bombay harbour, in charge of her own officers, in order to allow the steam-ship *Cambodia* to go into it, the *Discoverer* fouled the steamer *Mirzapore;* the *Discoverer's* stem striking the latter vessel amidships, thereby breaking a plate in the wake of a port, bending reverse frame iron, and damaging the wood-work in the cabin to which the port belonged. No damage to the *Discoverer;* the vessel left for Liverpool the following day. No loss of cargo. No loss of life. (The casualty was caused by the officers of the steamer *Discoverer* in not having engaged the services of an assistant harbour master.)

200. The British iron screw steamer MIRZAPORE [of Greenock, 2,164 tons register, official number 65604], from London to Bombay, with a general cargo. On the 26th June the steamer was lying at anchor in the Princes' dock, Bombay harbour, discharging her cargo, when at 5 P.M. the steam-ship *Discoverer,* whilst hauling out of M berth, Princes' dock, came into collision with the *Mirzapore,* thereby bulging and cracking one plate amidships of the latter vessel in the wake of a cabin port, bending the reverse frame iron 1″ in the widest part and about 2′ in length, and the wood-work in cabin also damaged. The master called a survey on the vessel, when after a careful examination by the Surveyors to the port it was reported that the damage done seemed to

be in no way serious. Value of damage to the *Mirzapore,* ₹400. No loss of cargo. No loss of life. (The casualty was caused by the officers of the steamer *Discoverer* endeavouring to haul the vessel out of her berth without having engaged the services of an assistant harbour master for the purpose.)

201. The British iron ship COUNTY OF ARGYLE [of Glasgow, 699 tons register, official number 53370] from Vizagapatam and Cocanada to Queenstown, with a cargo of jaggery. On the 27th June the ship, whilst in latitude 3° 29′ N, longitude 88° 33′ E. (Indian ocean), encountered heavy gales with high sea, and commenced making more water than usual. On the 25th July the master finding the bad weather continuing and the leak increasing ordered both pumps to be kept constantly going with a view to free her of water, but on the 28th it was discovered that the vessel was making 2½″ of water per hour, when the master bore up for The Mauritius for examination and repairs. The ship was placed in dry dock immediately after her arrival, and on being surveyed it was found that she was making no water; but on a farther examination having been held on the 1st August, it was ascertained that she had made 2″ of water within a space of 18 hours, when, in accordance with the recommendation of the Surveyors, the cargo was discharged. On the 4th the vessel was making three quarters of an inch of water per hour, and after the principal leaks were detected the hold was ordered to be thoroughly cleared for farther inspection. The *County of Argyle* after having completed the necessary repairs and re-shipped the sound portion of her cargo, proceeded on her voyage on the 12th October. Value of damage to the ship and cargo not reported. About 47 bags of sugar sweepings and 5 casks of molasses being unfit for shipment were sold by public auction, for what sum not reported. No loss of life. (No official report of the casualty reached this Department, nor could any information be obtained; the above details were compiled from private sources.)

202. The British iron ship MOUNTSTUART [of Glasgow, 1,220 tons register, official number 78621], from Liverpool to Calcutta, with a cargo of salt. On the 28th June the ship in charge of a pilot and in tow of the steam-tug *Alexandria* proceeded up the Hooghly river. At 7 P.M. the pilot whilst letting go the anchor at Saugor roads in 8½ fathoms of water, the chain broke at 6 fathoms without any apparent reason, as the range of chain did not go out, thus losing the anchor; Saugor island light bearing E.N.E., and Long Sand light S.½ E. The anchor and chain lost by the *Mountstuart* were subsequently recovered, and cost ₹382; she was also supplied with new articles the value of which was ₹850. No damage to the ship or cargo. No loss of life.

203. The British iron screw steamer MARLBOROUGH [of London, 1,164 tons register, official number 76991], from Basra to London, with a general cargo. The steamer left Basra on the 26th June, and had proceeded safely down the river in charge of a pilot without any incidents whatever. On the 29th the weather was fine but a little hazy, the wind was fresh from the northward, and the sea smooth, and running to the southward. At 11-30 A.M. the water having risen, the steamer was caught in an eddy-tide 2 miles N. W. by N. of the Outer bar buoy at the entrance to the Basra river (Persian Gulf) and became unmanageable in very narrow waters, the anchor was let go and the engines put full speed astern, but without effect, and eventually the steamer grounded on the bar. After several unsuccessful attempts to get her off, the crew commenced to discharge the cargo into lighters in order to lighten the vessel. The *Marlborough* after having been lightened of about 450 tons of her cargo, probably wheat, got off on the morning of the 7th and was safely anchored in the channel. She re-shipped her cargo and arrived at Bushire the next day, whence, after taking on board a portion of her cargo, she resumed her voyage on the 10th. The steamer was aground for 9 days, and it was reported that the hull had sustained no damage. The vessel lost a kedge anchor and two 6″

Manila hawsers; these lost articles were not recovered, and their estimated value was R1,376. Value of damage to the cargo, R650. No loss of life.

JULY.

204. The French iron screw steamer FALABAH [of Marseilles, 1,066 tons register, official number not reported], from Marseilles to Pondicherry, with a cargo of coals. On the 30th June the steamer arrived at Aden for the purpose of coaling, and after filling up her coals with 60 tons she resumed the voyage the next day; the weather fine with a swell from the S.E.; on the 2nd July the same weather continued, the wind from South shifted in the afternoon to S.E. and freshened gradually, and the sea heavy; at 11 P.M., whilst off the East point of Sokotra island, the wind began blowing in gusts, and there was the same heavy swell. At 1 A.M. on the 3rd a storm burst from the S.E., the waves breaking on board fore and aft covering the vessel with water; at 10-45 the same day the steamer was struck by a tremendous sea on the starboard side, when the port wheel chain broke and the vessel went off to starboard; on which the master stopped the engines and took in sail, but the foresail split to ribbons and she laboured much; the master, after repairing the damage, proceeded on his course; at 2-45 P.M. the steam steering gear gave way, which necessitated the engines again being stopped for repairs and the rudder had great play. At 4 P.M., the gale as violent as ever, the barometer 74·9, a tremendous sea covered the vessel, and a large quantity of water rushed into the cabin, &c., rendering it impossible to stay in it. During the night heavy seas swept over the fore part of the vessel and filled the forward saloon with water, and shortly afterwards it was discovered that there was 35 to 40 centimetres of water in the cabins below, and everything in them damaged and lost. At 11-40 A.M. on the 4th the steamer labouring excessively, the master felt a shock aft, and directly after the engines stopped, when the engineer on watch ran up and told the master that the after crank shaft had broken, the squalls as violent as ever, and the sea most fearful; the wind being on the starboard side the crew lowered the forestaysail with a view to proceed on the starboard tack. The master then held a consultation with the chief engineer regarding the nature of the damage, when it was found that he could not repair it under ten days, and then did not guarantee its proper working. At noon, position of vessel by observation was latitude 12° 20′ N., longitude 56° 20′ E., about 270 miles from Sokotra island and 880 miles from the island of Minikoi. There was no alternative but to keep on the starboard tack, drifting with the current and swell to the E.S.E., thus keeping on a frequented route in order to pass safely through the Eight Degrees Channel. The master formed an estimation that to make the passage under sail it would take 30 days; he thereupon assembled the officers and crew, and after a brief consultation it was decided to jettison a portion of the cargo, and nearly 18 tons were thrown overboard. On the 5th the crew tried to continue jettisoning the coals, but in consequence of the decks being constantly submerged the work was abandoned after heaving overboard 10 tons. The master then determined to open the bulkhead leading to the engine-room, as it would facilitate the jettisoning of the cargo, when on the next day 22 tons were thrown out of the bulkhead. At 4 P.M. a steam-ship was sighted steering an E.N.E. course, when the crew hoisted the French flag and made signals of distress to her, stating that the vessel's engines were disabled and required assistance, but she passed, evidently no one on board having observed the signals. Thus she proceeded under topsails, the wind shifting to South with very heavy head sea, the steamer being constantly covered with water and the crew very tired; about 30 tons more was discharged through the engine-room, making in all 80 tons. On the 8th the crew having

cleared the hold of water, it was opened and some provisions were got out. On the night of the 9th the fore crank of the shaft was found broken, but it was repairable. On the 10th the wind moderating and the sea going down, when the crew set all sail. On the 13th the fore crank shaft was repaired, the steamer proceeding under sail; fruitless attempts were made to turn the engines, but after working for an hour and a quarter they stopped. At 5-45 P.M. the master made all the arrangements with the help of the sails to steer the vessel, and the engines were set going 20 to 25 revolutions. At 5-20 A.M. on the 14th, the wind aft and the steamer going at the rate of 5 knots an hour, the engine broke down, when she continued on her journey with the aid of sails. On the following day they were started after being repaired, but had scarcely made 5 or 6 revolutions when the fore crank broke with a jerk. Whereupon the master abandoned the idea of repairing the engines, as they could not be depended upon, the steamer being light would not steer properly, and went off to N.N.E.; the sails were braced up and efforts made to get her head off as the master thought that it carried her in the direction of the Lakadivhs. At daylight the master descried the French transport S.S. *Gironde,* and distress signals for assistance was made to her, when the steamer changed her course and bore down to the *Falabah* at once. The *Gironde* tried on two occasions to tow the disabled vessel, but the hemp hawsers parted; on the 18th she proceeded after passing a wire hawser, and eventually towed into Colombo harbour on the 22nd. The *Falabah* stayed a month at Colombo, and after having effected her repairs re-shipped the cargo and proceeded to her destination (Pondicherry). Value of damage to the steamer, £2,000; cargo £500. No loss of life.

205. The British iron ship SOUDAN [of Liverpool, 1,750 tons register, official number 91182], from Middlesborough to Calcutta, with a cargo of iron, coals, &c. On the 5th July the ship, under charge of a pilot and in tow of the steam-tug *Challenge,* was proceeding up the Hooghly river. At 3-40 P.M. the same day the vessel was hauling into the Eastern Gut, James and Mary's, with the usual precautions. Just after passing the *Waterloo* wreck buoy the ship took a slight run to port, the helm being put to hard-a-port, the vessel answered it, but by the time she was nearly straightened in her course, she was in No. 3 track, the helm for a moment was eased, and immediately afterwards put hard-a-port again, and when exactly in No. 2 track the *Soudan's* heel grazed the sands, causing her bow to pay off, and the hawser at once parted. The ship remained aground, between Nos. 1 and 2 tracks with her head pointing to Hooghly point semaphore. The tug went ahead of the ship as soon as practicable and passed hawsers, and at 5 P.M. she was towed off and proceeded up safely to Royapur, where she anchored for the night. The least water on the starboard side was 19′ forward and 20′ aft, but the soundings on the port side could not be depended on owing to the under-current. The pumps were sounded on night of the 5th, and again the next morning, and the vessel reported to be making about 2″ of water. She was aground for 1½ hour. On the morning of the 7th July the Surveyor to Lloyds' Agents proceeded on board the ship *Soudan,* lying at No. 4 Jetty, in order to make a survey on the bottom of that vessel, to ascertain whether she had taken any hurt by the grounding. After making a careful examination it was reported that no indication of straining above water could be found, but the hold being full of cargo the Surveyor was unable to inspect the inside. On perusal of the vessel's log-book it was observed that the ship had made no water on the passage out until her accident in the Hooghly river, but after floating 8″ water was found in the well. The master, the first officer, and the carpenter stated that she made water after coming off the ground, and the Surveyor on sounding the well found 8″ water; he therefore sealed up the pumps after seeing her pumped out dry. He reported that when he

unsealed the pumps the next morning it was observed that she had made the same quantity of water, the leak having apparently stopped. The river water being very muddy at that season of the year (during the freshets), and probably the mud had stopped the leak, which might break out again on the vessel going to sea. From the entries in the ship's log-book it seemed that there was a leak in the bottom, the nature and extent of which could not be ascertained whilst the vessel was afloat; the Surveyor therefore was of opinion that she should not load another cargo whilst there was a doubt about her seaworthiness, and advised that she be placed in dry dock for examination of the bottom. On the 1st and 3rd August Lloyds' Surveyor, accompanied by a Marine Surveyor, visited the ship, lying in the Hooghly dry dock, Howrah, for the purpose of surveying her bottom. The dock being pumped dry, they made a very careful and minute examination of the bottom on both sides, but found no indication of straining, weeping rivets or butts, in any part of the bottom; the rudder, the pintles, and the gudgeons were sound and good; a portion of the cargo, consisting of coals and plates of iron, was left in the vessel for ballast going into dock. They advised that the cargo be shifted forward and aft, leaving the middle of the ship clear for examination of the cement and floors inside; and that in the meantime, the bottom outside should be coated afresh with paint, the plates being entirely bare of paint throughout, as far up as the light water line. The cargo having been shifted as recommended, and all the loose ceiling up to the lower part of the bilges lifted, and a plank of the fixed bilge ceiling taken out, an examination was made on the 3rd of the cement and floors from the middle of the fresh water tanks, abaft the mainmast, to the fourth hold pillar abaft the foremast, and found the cement sound and adhering to the iron, and no indication of straining or any injury on the floor or angles; the keelsons and the stringers above the bilges, the 'tween deck stringers and beam ends fore and aft the ship, and also the collision bulkhead, showed no slack rivets or any indication whatever of straining. The Surveyors stated that they were unable to account for the increase of water in the well after grounding, unless it might have occurred by the vessel having altered her trim whilst on shore, and that the water in the limbers had run to the pump well. The fresh water tanks were examined, but no leakage discovered from them. When the cargo, kept in the hold for ballast, should be again shifted from the ends or discharged, the cement and floors in the ends would be examined; but from what had already been examined the Surveyors were of opinion that the vessel had received no hurt by the grounding, and that she might proceed out of dock at once. On the 5th the Surveyors visited the ship, lying afloat at No. 10 Esplanade moorings, for the purpose of surveying her finally. They reported that they examined the cement and floors forward and aft, the cargo left in the vessel for ballast whilst in dock having been removed from the ends to the midship part, and lifted the ceiling in the ends, and found the cement intact and adhering to the iron, showing no indication of straining or any damage whatever in either the cement or floors or any other part. They were of opinion that the *Soudan* had made no water since proceeding out of dock; that she was strong, staunch, and seaworthy, and fit to carry a dry and perishable cargo to any part of the globe, and was a first class insurance risk. Value of damage to the ship, ₹2,500. No loss of cargo. No loss of life. (It appeared that this casualty was the result of an accident due to the water in the Eastern Gut, James and Mary's, having shoaled a little, and to the pilot having to take the bar with a small margin of depth to spare owing to scant tides.)

206. The British iron screw steamer AFRICA [of Glasgow, 1,318 tons register, official number 68108], from Calcutta to Rangoon, Maulmain, and The Straits, with a general cargo. On the 7th July, when off the Sandheads (exact position not given), the steamer, during a heavy weather, met with an accident

to her machinery, the feed pipe having broken which caused a detention of about 13 hours. Value of damage to the machinery not reported. No damage to the hull. No loss of cargo. No loss of life. (The cause of the casualty was not reported. No official report of the accident reached this Department, nor was any information obtained from the Marine Authorities at Rangoon or the Agents of the vessel at Calcutta; the above details were compiled from private sources.)

207. The British iron screw steamer RED SEA [of Liverpool, 2,165 tons register, official number 86189], from Bombay to London, with a general cargo. On the 7th July the steamer, when in the Arabian sea, nearly 250 miles to the westward of Bombay, met with an accident to her machinery, the crank shaft having broken; cause not reported. The engineer having replaced it with a spare one on board, she proceeded on her destination. Value of damage to the machinery not reported. No damage to the steamer. No loss of cargo. No loss of life.

208. The British iron screw steamer CALDER [of Bombay, 400 tons register, official number 67978], from Bombay to Basra *viâ* coast ports, with a general cargo. The first officer stated that on the 6th July the steamer was lying at anchor in the Bombay harbour; at 6 A.M. the next day the pilot unmoored the vessel and hove short, and at 8-30 A.M. hove up and proceeded to sea. After going a short distance the donkey pump was found not to be in order, there being then 25″ in the wells, the master at once set all the hands at the deck pump. At that time there appeared to have been a moderate breeze from the S.W. but with hazy weather. At 9-40 the master discharged the pilot and put the patent log over, the Outer light-ship bearing E. ½ S. and the Kolaba light-house N.E. by N. At 10 A.M., on examination of the donkey pump by the engineer, it was discovered that the water was above the stokehole plates having run out of the donkey boiler, and the ashes washing into the bilges, thereby choking the donkey pump, which was not working. Attempts were made to stop leak but without success, and it was found to increase. The master thereupon deemed it prudent to return to port, and half an hour afterwards a pilot came on board, and the vessel proceeded into Bombay harbour, when, at 11-50 A.M., she anchored off the Apollo bandar with 45 fathoms of cable each way. In the meantime the crew began pumping the water from the after hold, whilst the engineers were getting the engines in working condition, &c. The crew cleared the pumps, and the *Calder* after having the repairs effected on board without extra help, resumed her intended voyage on the afternoon of the following day (the 8th). Value of damage to the steamer, machinery and her cargo not reported. No loss of life. (It was reported that the donkey boiler was run into the bilges before leaving Bombay, and the water not having been pumped out at the time, was in consequence of the neglect of the new engineer nearly up to the stokehole plates. When the steamer got outside the harbour she commenced to roll violently, and the water washed the stokehole plates up, and the ashes getting into the bilge, the donkey pump was disabled.)

209. The British iron ship CONNAUGHT RANGER [of London, 1,153 tons register, official number 67787], from Otago, New Zealand, to Calcutta in ballast. It appeared that the ship arrived at the Sandheads on the afternoon of the 8th July and hove to on the starboard tack; at 8 P.M. the master wore and hove to on the port tack, the Eastern Channel light-ship bearing N.E. by E., distant about 10 miles. The *Connaught Ranger* kept backing and filling all night waiting for a pilot. At 6 o'clock the following day she was boarded by a pilot and proceeded up the Hooghly river by the Eastern Channel without the aid of steam to Diamond harbour, where she was anchored at 6 P.M. for the night. On the 10th there being a moderate breeze from S.W., with fine weather, the pilot commenced to heave in slack chain, and at 6 A.M

broke ground and got underweigh and proceeded under full sail up the river. She backed and filled up to Luff point, and at 8-45 A.M., whilst standing on to Luff point on the starboard tack, the pilot put the ship in stays, but when nearly head to wind she stopped going round and shot into the slack off the point, and before the pilot could get everything thrown aback she grounded on Luff point. The pilot hauled the sails flat aback till the tide fell 5′, when, as she did not come off, they were clewed up. At noon the vessel was heading S.S.E.; the pilot then got a kedge anchor out astern and tried to heave her off, the tide being half ebb she slued with her head to S.S.W. and then remained stationary well over on the starboard side. At low-water the ship was dry as far as the fore rigging on the port side with a list from 6° to 8° to starboard, the bottom being clay, mud, and sand. At 6 P.M. the crew set the topsails and the topgallantsails on main, and mizenmasts aback, when, at 7-15 P.M. the same day, the *Connaught Ranger* slipped off the bank into deep water, and the pilot anchored her in the channel for the night with 30 fathoms of chain cable to her port anchor. An hour afterwards, on sounding the wells, the pilot found that the vessel was making no water. Early the next day she weighed and proceeded up the river without any farther accident occurring, and anchored off Garden reach. At 2 P.M. an assistant harbour master came on board, and shortly afterwards she was anchored off Hastings' moorings and lay at single anchor all night; on the 12th, she hove up her anchor and dropped up the river with the flood-tide, and was hauled into No. 2 Esplanade moorings, where she was moored head and stern. On the morning of the 14th the master called a survey on the vessel and Lloyds' Surveyor proceeded on board to ascertain whether she had received any injury by her grounding in Hooghly bight. After a careful survey of the ship above water, outside and inside, as far as it was possible, there being ballast in the hold, it was reported that no indication of straining or hurt was detected above water. From a perusal of the ship's log-book the vessel remained aground for 10½ hours on the bank, the bottom being clay, mud, and sand. At low-tide she was dry forward and rested on the port bilge with a heavy list to starboard, her stern being 6′ in the mud. He was of opinion that the *Connaught Ranger* should not load another cargo until it was ascertained whether the bottom had sustained any hurt by the grounding, and therefore recommended that she be placed in dry dock for examination. On the morning of the 18th Lloyds' Surveyor, accompanied by a Marine Surveyor, proceeded to the Hooghly dry dock, Howrah, to make a survey on the bottom, and found that the vessel had been placed on high blocks and the dock pumped dry. After having made an examination, they found that on the starboard side two butts of the 2nd and 5th stakes of plating, from the keel under the fore rigging, were emitting rusty moisture as if they had been slightly strained; and the paint rubbed off the fore foot, and in several places along the keel. On the port side several butts forward, under the fore rigging, in the plates near the keel, and in the plate below the bilge, between the fore and mainmast, and in the plate above the bilge, showed rusty moisture; the paint rubbed off in places on the fore foot, on the keel, and under the bottom, from the stern as far aft as the mizenmast; the bottom was otherwise uninjured. The cement of the floor inside, from the collision bulkhead as far aft as the main hatchway, was found intact. They were of opinion that the *Connaught Ranger* had received no serious injury, and accordingly advised that the butts mentioned above be scraped clean and puttied, and that the bottom be scraped and coated with two coats of good paint and a coat of tallow; two 4½″ Manila ropes parted when the vessel was proceeding out of moorings to go into dock, to be replaced with new ones. On the 20th the Surveyors again visited the ship in dock to finally survey her. They found that the weeping butts had been puttied, and the

bottom painted as advised. They farther certified that the *Connaught Ranger* was strong, staunch, and fit to carry a dry and perishable cargo to any part of the globe, and was, in their opinion, a first class insurance risk. She was aground for 10½ hours. Value of damage to the *Connaught Ranger,* R2,083. No cargo on board. No loss of life. (The casualty was accidental, being due to the ship having missed stays.)

210. The British iron screw steamer WESTBOURNE [of Hull, 1,227 tons register, official number 79035], from London to Bombay, with a general cargo. On the 11th July the steamer arrived at the Outer light-ship, Bombay, and proceeded up the harbour under charge of a pilot. At 10 A.M. that morning, whilst entering the Princes' dock, she was found to be going ahead too fast, the engines were in consequence turned astern full speed and the anchor let go, but the chain fouled and the anchor did not touch the bottom, and failed to hold the vessel, when the *Westbourne* came into collision with the dock wall and received considerable damage to the starboard bow; the starboard bow was badly stove in and several plates bent and broken. On the 21st she completed her repairs, and after having loaded her export cargo she left Bombay for Liverpool *viâ* Kurrachee. Value of damage to the *Westbourne,* R6,989; cargo, R2,608. There was no damage done to the Princes' dock. No loss of life.

[A Departmental Committee of Inquiry was held in the office of the Dockmaster, Princes' dock, Bombay, on the 14th July, for the purpose of investigating the cause which led to the steam-ship *Westbourne* coming into collision with the Princes' dock pier head and receiving serious damage. The Committee recorded that, having assembled pursuant to citation, the pilot in charge of the steamer was called and the papers and correspondence relating to the case were read and filed. The witnesses for the prosecution were then called and examined, and on conclusion of their evidence the Committee read their report. The Committee observed that from the evidence of the master of the vessel and the pilot, which was somewhat conflicting as to the speed and movements of the vessel after it had entered the Princes' dock channel, it agreed in one important particular, that after the vessel entered the dock channel no order was ever given to go "full speed ahead" with the engines; on the vessel nearing the dock the engines were stopped, and about one minute after the order was given by the pilot to go slow astern, and the pilot noticing that the steamer's headway was not checked, looked over the side and remarked to the master that the engines were not moving; the pilot then directed them full speed astern, and the master stated that he had already given that order. Seeing that there was likely to be a collision, the dockmaster also sang out to do so at same time, and as the vessel retained so much headway, gave orders to let go the anchor (when about 500′ from the centre pier); all this happened two or three minutes before the collision took place. The Committee were of opinion, that when the order was given, after the vessel had been stopped off the dock entrance, to go slow astern, that the engines were set in motion slow ahead, and that the order being given directly after to go full speed astern, the engines were moved full speed ahead through some unaccountable mistake made either by the master who worked the telegraph on the bridge, or by the chief engineer who was working the engines misreading the telegraph in the engine-room. The chief engineer stated that one minute before the *Westbourne* struck the wharf the engines were going full speed ahead, but could not remember for how long, when the engines were reversed to "full speed astern;" he farther stated that from where he stood he could see the telegraph, and moved the engines according to the instructions received through it. The donkey-man, who was working the starting gear under the orders of the chief engineer, stated that the engines had been going full speed ahead for almost two minutes, and that they were reversed to "full speed astern" about a minute before she struck the dock wall, this mis-

take having been made in the movements of the engines would account for the headway the steamer had on approaching the centre pier, and thereby caused the accident. The Committee observed that, with regard to the chain having jammed when the anchor was let go, all the evidence adduced on that point clearly showed that a lashing or lashings had been made fast round both chains somewhere below the forecastle deck, and ought to have been observed by the man sent by the first officer to see that the chains were clear for running, and that, under the circumstances, had the chain been clear when the anchor was let go, it might not have prevented the casualty, but would probably have lessened the damage sustained. The Committee, after a careful consideration of the evidence in the case, were of opinion that as the engines were not moved as ordered by the pilot on approaching the dock entrance, no blame could be attributed to him for the accident. He was therefore acquitted.]

211. The British iron barque WARRIOR [of Greenock, 484 tons register, official number 20800], from False Point to Cochin, with a cargo of rice. The barque left False Point harbour on the 5th June, bound for Cochin, with a full cargo of rice. Nothing of importance occurred until the 11th July, when the vessel followed the recognized route in passing through the Mergui Archipelago. At 5 A.M. on that day the barque was proceeding down the Forrests Strait with all sails set; at 5-30 A. M., whilst beating out of Hastings harbour with adverse winds and currents, the *Warrior* struck some sunken reefs 10 miles to the N. W. of the Pakchan river, in latitude 10° 03′ N., longitude 98° 27′ E. (Malay Peninsula), and floated off at 7-30 A. M. the same day after having been aground for two hours. She subsequently proceeded into Mergui harbour for the purpose of sighting her bottom, where it was found that she had not sustained the slightest injury and sailed again on her voyage to Cochin. No damage to the barque of cargo reported. No loss of life. (The casualty was attributable to the negligence of the first officer in having steered the course he did, which must, as it evidently turned out, result in running the vessel on shore; he further neglected to use the lead when he knew that he must have been in shoal water and in close proximity to dangerous rocks.)

212. The British iron screw steamer RIVER ETTRICK [of Glasgow, 934 tons register, official number 87669], from Bombay to Dunkerque, with a general cargo. The steamer when she left Bombay on the 3rd July encountered the ordinary S. W. monsoon, and nothing unusual occurred until the 12th. At 8-30 A.M. on that day the vessel was steering on a W. S. W. course with only her fore and aft sails set; the weather was then cloudy and the wind moderate from S. W., and a confused sea from the same direction; she went to the southward of the Kuriyán Muriyán islands in latitude 16° 30′ N., longitude 56° 10′ E. (East coast of Arabia); the engineers were startled by a violent striking and knocking aft along the tunnel, and at once reported the circumstances to the master, who immediately stopped the engines, and on examination found them with the tunnel all in good order; the engines were started, but on every turn of the engines violent striking and knocking continued, getting worse, vibrating the entire after end of the steamer. The master again stopped the engines and had the lower lazarette and stern tube examined, but it was reported that nothing could be seen, when the master came to the conclusion that the brass liner between the stern tube and shaft had given way, and that the propeller must have dropped, and getting in contact with the keel and sternpost, struck and knocked so violently. The chief engineer subsequently reported that the shaft and stern gland was working aft and loose. He thereupon tried to effect repairs on board by tapping 3 bolts on the liner to keep it in its place and started the engines slow, but the steamer was still striking on every turn of the engines, the rudder vibrating much. The master having consulted with his officers and engineers on the disabled state

of the engines, thought it not safe to continue on the voyage, consequently the next day (the 13th) he put back to Bombay, proceeding, when about 960 miles W.S.W. of Bombay, under sail only to prevent the loss of the sternpost, also arriving at that port on the afternoon of the 21st, and on the following day (the 14th) she entered the Princes' dock and discharged a part of her cargo, so as to allow of being surveyed and repaired. The Engineer Surveyor to the port of Bombay reported that, after a careful examination of the *River Ettrick* on the 25th, it was found that the outside liner on propeller shaft had got slack and worked its way up the shaft into the tube, causing the outer end of the shaft to droop and the tips of the propeller blades to come in contact with the shoe of the sternpost. The inside liner had also worked slack and went out half an inch from its original position. On the 27th the steamer was again surveyed, when it was reported that the shaft should be turned up after being taken out and two new liners shrunk on and then pinned. The stern tube to be taken out and new lignum vitæ liners to be fitted. All the present leaky rivets in the rudder and under post, to be taken out and replaced by snap-headed ones. The liners were originally only shrunk on and not pinned, to which the Engineer Surveyor attributed the accident. On the 4th August she was finally examined by the Shipwright Surveyor assisted by the Engineer Surveyor to the port. They reported that the steamer was docked, the propeller shaft drawn out, the propeller taken off, and two liners fitted on the shaft after having been turned and a new lignum vitæ liner fitted. They were of opinion that the whole of the aforesaid repairs had been carried out to their satisfaction. The *River Ettrick* after having re-shipped her cargo sailed again for her destination early the following day. Value of damage to the steamer ₹6,525; machinery ₹2,315; cargo ₹2,127. No loss of life. (It was reported that this casualty was attributed to the liners on the shaft being only shrunk on and not pinned by the builders of the engines.)

213. The Cingalese schooner EMMANUEL [of Colombo, 92 tons register, official number 31123], from Colombo to Tuticorin, with a cargo of gunnies and betelnuts. On the 12th July, whilst the schooner was entering the Inner harbour of Tuticorin (Gulf of Mánar) at high-water, through the Devil's Pass, the wind suddenly changed from S.E. to S.W., and she was taken aback. At 2 P.M., whilst drifting, she struck on the old Oyster Nursery forming a portion of the Middle bank. On the next day, with the aid of sails, she floated off on the morning's flood-tide, after having been aground for 23 hours. No damage to the schooner. No loss of cargo. No loss of life.

214. The British wooden barque FIERY CROSS [of London, 694 tons register, official number 29165], from Maulmain to Pámban, with a cargo of rice and paddy. On the 13th July the barque was lying with one anchor down off Elwalethoray in 7 fathoms of water (Palk's Strait); at 6-30 A.M. the morning was fine with clear weather, there was a strong breeze from the S.W., and there being a heavy swell on, in heaving short, owing to the jump of the sea, the chain snapped on the windlass and the bower anchor was lost, carrying with it 12 fathoms of chain. No damage to the barque. No loss of cargo. The anchor and chain lost by the *Fiery Cross* were not replaced, neither had they been recovered; the value of the lost articles were ₹780. No loss of life.

215. The British wooden barque FIERY CROSS [of London, 694 tons register, official number 29165], from Maulmain to Pámban, with a cargo of rice and paddy. On the 14th July the master altered the barque's berth and brought her to anchor in another position with the object of discharging her cargo rapidly, and just as she was bringing up at 8 A.M., her heel touched the edge of the 3-fathom patch, near the anchorage, the Tripod and Pámban Pass ball in line (Palk's Strait). It was low-water, the weather fine and clear, and the wind was fresh from the S.W., there was a slight swell on, but the sea other-

wise was moderately smooth. The master stated that the usual precautions of lead and look-out were taken before the casualty happened. Immediately the vessel struck the ground sail was made to try and drive her off, when the barque backed off at once. She was then safely anchored in the channel, where she subsequently commenced discharging her cargo. No damage to the hull or cargo. No loss of life. (It was reported that the casualty was unavoidable, being caused by the extraordinarily low spring tides.)

216. The British composite ship RIVERSDALE [of Calcutta, 1,453 tons register, official number 2 of 1885], from Calcutta to The Mauritius, with a cargo of rice. Nothing of importance occurred till the 15th July; when passing 60 miles to the S.W. of Car Nicobar island in about latitude 8° 49′ N., longitude 91° 30′ E., the vessel encountered a succession of heavy gales from S.E. and shipped large quantities of water; the gale increasing, with heavy breaking sea, the main and mizen topgallantmasts were carried away and the fids of the fore and main topmasts sprung. The ship after experiencing very heavy weather in the Bay of Bengal arrived at The Mauritius on the 7th August. On the 12th she was surveyed whilst lying afloat in the harbour of Port Louis. The Surveyors reported that from a perusal of the vessel's log-book, the *Riversdale,* when in the Bay of Bengal on the 15th July, encountered a succession of bad weather and high breaking seas, during which time she laboured and strained excessively, when it was found that the fids of the fore and main topmasts were sprung and the masts had settled down considerably. Thirteen days afterwards, the heavy gale continuing, the foretopmast trussle trees were carried away, the main and mizen topmast trussle trees broke in two, and both topgallantmasts were carried away at the cap. The wells were sounded and she was found to be making no water. The Surveyors recommend that the whole of the above-mentioned damasge should be made good. The hatches, which were well secured, were removed, and the cargo immediately below them was found to be dry and in a sound condition, the vessel having been surveyed on various occasions whilst being discharged, proved to be everywhere well stored and amply dunnaged. On the 14th September the Surveyors visited her for the purpose of examining her finally and ascertaining whether the repairs and renewals had been executed and completed satisfactorily. They reported that all the repairs had been carried out to their entire satisfaction and the vessel well ballasted and ready to proceed to Chittagong to load a cargo of rice. They were of opinion that the ship *Riversdale* was as good as she was before the accident, and pronounced her to be strong, staunch, and seaworthy, and fit to carry a dry and perishable cargo to any part of the world, and was a first class risk for insurance on block or cargo. Value of damage to the ship not reported. No loss of cargo. No loss of life. (No official report of this casualty reached this Department, nor could any information be obtained from the Marine Authorities at Chittagong or the Agents; the above details were compiled from private sources.)

217. The Italian iron screw steamer BORMIDA [of Genoa, 1,499 tons register, official number not reported], from Calcutta to Genoa, with a general cargo and 12 passengers on board. On the 15th July the ship *Viscount* was lying at moorings moored fore and aft at Matia-brúj in the Hooghly river, with two other vessels (the barque *Helen Scott* and the ship *Brenda)* at moorings in front of her, and a barque called the *Ixopo* had just then anchored farther up in the stream and nearly abreast those two vessels. The *Bormida* was taken down the river from her moorings in the port by an assistant harbour master near the Shalimar sands on the Howrah side of the river, between the Shibpur Engineering College and the Botanical gardens, and had come to an anchor with her head up stream. She then waited till the tide suited, the assistant harbour master left her and a pilot took charge. A little after 10 A. M. the pilot commenced to turn off the Lower Bishops' College sand

buoy; the tide being very strong and the vessel a little more than athwart off Garden house, the pilot determined to proceed ahead with the intention of going round between the barque *Ixopo* (which vessel was anchored in the middle of the stream) and the moorings, but finding that he could not do so, he waited until the steamer was clear of the barque's hawse, and then went astern full speed; and although the vessel had lost her headway, the tide set the *Bormida* foul of the *Viscount* before the former vessel had gathered sufficient sternway; the *Bormida's* anchor hooked the *Viscount's* fore rigging, and was carried away from the bows, running out most of the chain. The *Bormida* remained head down the river until the barque *Ixopo* was removed, when the pilot was enabled to swing her round to the ebb, but the chain was carried away; after which the vessel steamed back to Garden reach. The *Bormida* damaged her foretopmast and yards; the rigging and chain plates forward; the topgallant rail, plate of the topgallant bulwarks, and two main bulwark plates damaged. She left for Genoa on the morning of the 16th without undergoing any repairs or examination at Calcutta, but was detained at Kalpi at the instance of the Agents of the ship *Viscount* by an order obtained from the High Court in its Vice-Admiralty jurisdiction. A commission was then issued for the examination of certain witnesses, who had seen the accident, for the purposes of a suit; and on the Agents of the *Bormida* furnishing security, the vessel was allowed to proceed on her voyage. Value of damage to the *Bormida* not reported. No loss of cargo. No loss of life. (It was observed that the pilot of the *Bormida* accounted for the accident mainly to the position the barque *Ixopo* had taken, but this was denied by the harbour master. He stated that the *Ixopo* was placed by an assistant harbour master between No. 1 Matia-brúj moorings and Messrs. Gladstone Wyllie's sheers in a clear swinging berth close into the south bank; the vessel was lying with a sheer on her port helm towards the south bank, thus bringing the buoys off the moorings nearly in line. The harbour master was therefore of opinion that Port Rule 23*a* was duly observed, and that the *Ixopo* was not obstructing the turning ground. The Port Officer recorded that the members of the Pilot Service had been duly warned on the 23rd June that the tide would be exceptionally strong at that date and the pilot should have therefore used every precaution in navigating the vessel. This casualty, which had resulted in serious damage to the *Viscount,* was caused by unskilfulness on the part of the pilot in attempting to turn the *Bormida* round in such a strong tide whilst the reach was obstructed by the barque *Ixopo,* as admitted by the pilot himself.)

[The case was investigated at the High Court on the 4th, 5th, and 9th September, and decided in favour of the impugnants (the owners of the steamship *Bormida.* The counsel for the promovents (the ship *Viscount)* in opening, stated that this case arose out of a collision which took place, on the 15th of July, between the Italian steamer *Bormida* and the ship *Viscount.* At 10 A.M. on that date, the *Viscount* was lying at her moorings, moored fore and aft, at Matia-brúj, on the Calcutta side of the river, with two other vessels at moorings in front of her, and a barque called the *Ixopo* had come to an anchor farther up in the stream and almost abreast those two vessels. The *Bormida* had gone down from her moorings in the port, and had been transported by the assistant harbour master to near the sand bank on the other side of the river, between the Engineering College and the Botanical gardens, and anchored with her head up stream. She then waited for the tide when the assistant harbour master left her, and a pilot took charge a little after 10 A.M. She weighed and proceeded up stream a little way, with the view of turning her head round, and turned to starboard, thus turning towards the southern bank. When she had got across the river, lying across, the current carried her down, and when she got just halfway she put on full speed, and came across the river, and, finding that this was likely

to bring her into collision with one or the other of the three vessels moored there, she reversed, but could not get sufficient way on her, and the result was that she fouled the *Viscount,* causing her considerable damage. The *Viscount* at the time was moored head and stern, and was not in any way to be blamed, being perfectly crippled, and was not able to get out of the way, and the accident, therefore, was entirely due to the conduct of the *Bormida.* Under those circumstances, he submitted that it was for the *Bormida* to show that she was not to blame for the accident, and that it was for her to prove that the accident was entirely due to the fault of the pilot, and it was for the persons who chose to take advantage of the defence of "compulsory pilotage" to show how the accident happened, or that it was due entirely to the fault of the pilot, and it was the ordinary rule that it was only where a collision was caused by the fault of the pilot that owners of the ship were exempt ed from liability. The impugnants had also pleaded that the case was one of inevitable accident, and under ordinary rules, where that defence was set up, the *onus* would be on the promovents to show the act of negligence which caused the accident, but that rule did not hold where the other vessel was put to the *onus,* and a different rule obtained, and that was that, where the other vessel was *primâ facie* to blame, the *onus* did not lie with the promovents. The counsel on behalf of the *Viscount* referred to two cases in support of his contention, and continued that the defence put forward two pleas: (1) that the vessel was under compulsory pilotage, and (2) that it was an inevitable accident, and therefore no fault of anybody's. The counsel then proceeded to deal with those pleas, and concluded by stating that, given all the facts as stated, the *onus* was shifted on to the impugnants. The counsel who appeared to watch the proceedings on behalf of the impugnants (the steam-ship *Bormida)* submitted that there was no case before the Court in the pleadings, because, admitting every word in the written statements, there was no case against the owners of the *Bormida.* It was quite clear that in the case of a collision an action could not proceed simply on the statement that one ship had fouled another, as one must prove either gross carelessness or want of nautical knowledge on one side owing to which the collision took place. In this case the steamer was in compulsory pilotage charge, and further nothing of negligence was alleged in the plaint; and having made no such general allegations, no evidence could be given in support of it. He was, therefore, clearly entitled to a judgment of the Court. He did not know any case in which the promovents had been allowed to go into a case without making even general allegations of negligence. The pleas put in were that they were not liable, because there was a compulsory pilot on board, and second, that they were not liable because they were not to blame. The counsel for the *Viscount* was heard in reply, after which the Court held that the *onus* lay on the impugnants to prove that if there was any negligence, it was negligence which was due entirely to the pilot, and that, on the bare statement of the facts of the case, negligence, *á priori,* was inferible. The Court therefore called upon the impugnants to establish their case. The counsel for the *Bormida* then proceeded to read the written statements filed in the case, and the evidence taken on commission. Only one witness was examined, after which the Court rose for the day. On the Court re-assembling on the 5th farther evidence was gone into on behalf of the impugnants, after which the counsel for the *Bormida* put in a copy of the Government Gazette dated July 1885, which, he said, contained orders relating to compulsory pilotage. He also put in the correspondence which passed between the parties relating to the collision, the subject-matter of this case. He then closed his case. The counsel for the *Viscount* next addressed the Court at some length. He submitted that the impugnants (the *Bormida),* so far as the inevitable accident was concerned, had made out no case upon the evidence. Then, with regard to compulsory pilotage, it was stated by the other

side that it was entirely the pilot who directed the starting of the vessel, and it was by his directions that the vessel was moving. It was entirely his fault. If that was so, it was for them to prove it, which they had not done. It was for them, the counsel said, to show how they came under the defence of compulsory pilotage, and thus be free from liability in this case. He then quoted authorities on the point of compulsory pilotage. The counsel for the *Bormida* replied on the authorities cited, and pointed out that for nearly twenty years it had been held in the Calcutta High Court not only that pilotage within the port was compulsory, but also that where an accident happened through the negligence of the pilot, the owner was not liable. The cases which had been cited by the counsel were very different from the present case. The promovents were fishing for some point or other to rely upon. They had nothing in their written statement, and it was filed after the examination of the master and other depositions were put in. The counsel said that he had proved conclusively that the pilot gave the order to start the vessel. On the Court assembling for the third time on the 9th, judgment was given. Mr. Justice Pigot, in delivering judgment, remarked that this was an action for damage in reference to a collision between the two vessels in the river Hooghly. The steam-ship *Bormida* in proceeding down the river on the forenoon of the 15th July, came into collision with the ship *Viscount,* which ship was then lying at her moorings off Matia-brúj, within port limits, below which place there were also moored two other vessels. For the impugnants *(Bormida)* two defences were raised: *first,* that they were not liable, inasmuch as at the time of the casualty the *Bormida* was in charge of a duly authorized pilot, in the service of the Local Government, and that, as such, under the provisions of the Indian Ports Act of 1875, the employment of such pilot was compulsory. The *second* defence raised was, that the collision was the result of an inevitable accident. Both these pleas having been set out in paragraphs 6 and 10 of the impugnants' written statement, and which paragraphs his Lordship read *in extenso* as showing the facts, his Lordship then went on to say that during the whole of those occurrences, the impugnants had no power to direct or interfere in any way with the navigation of the vessel, nor did they act in any respect against the order or the judgment of the pilot. At the hearing of the case the counsel on behalf of the promovents (the *Viscount)* submitted that on the pleadings of the impugnants it was for them to make out *onus,* and the counsel on behalf of the impugnants contended that no negligence having been expressly alleged on the part of the impugnants, there was no case for him to meet. On their pleading his Lordship had decided that the *onus* to prove that there had been no negligence lay on the part of the impugnants, and this was accordingly done. The leadsman and the pilot had been examined, but no evidence was tendered on behalf of promovents. His Lordship held that it was clear, apart from any statutory provisions exempting the vessel when under compulsory pilotage charge, that owners were not liable for any damage caused by the negligence or default of the pilot, apart from extraordinary cases, such as gross misconduct. His Lordship then went on to quote a case from the Bombay High Court Reports, in which it had been held that compulsory pilotage was a good defence. In the present case he thought it was established that during the whole time which elapsed between the moment that the *Bormida* weighed anchor at 10-10 A.M. until after the collision, the steamer was under the exclusive and complete control and charge of the pilot; that his orders were accurately and promptly obeyed; that the vessel was well found and in good order; and that there was no defence raised in the case as to the way in which the vessel had been steered. His Lordship then proceeded to detail the circumstances under which the collision occurred, as given in the evidence, and went on to remark that it had been shown, he thought successfully, that the control of the vessel was in the pilot, and

that there was no want of care or skill in making the attempt to pass, and that it was to an accident that the collision was due. No application was made during the trial of the case for the assistance of assessors, and if his Lordship had to determine the case, whether or not the ship had been badly navigated, he should have had to decide without the aid of professional evidence. Dealing with the plea of "inevitable accident," it was in the evidence of the pilot that the *Bormida* was prevented from going round as soon as she should have, from the force of the currents and the eddy-tides. There was the sworn testimony of the pilot, no doubt a person to some extent interested, that the steamer was prevented coming round by the tide or eddy-tides; and this evidence was not contradicted, and he was bound to take this evidence. It was also argued or suggested that there was negligence for which the owners of the vessel were responsible, in taking the steamer down the river on that morning, the pilot alleged that the tide was very strong. On this point at least, the promovents could, if they had wished, have placed evidence before the Court, both as to that fact, and as to whether, as a matter of professional skill or judgment, taking a vessel down the river was so dangerous as to, in itself, have made it proof of negligence. But on that point the evidence of the pilot was not, in itself, sufficient to justify his Lordship in coming to the conclusion that there was negligence. On the whole his Lordship held that the plea of compulsory pilotage was sufficiently established, and that the defence of inevitable accident was, on the balance of the evidence, as completely established. He found in favour of the impugnants with costs. The counsel for the *Viscount* submitted that the ordinary rule in Vice-Admiralty cases was that, where the impugnants succeeded on the defence of inevitable accident, no costs were awarded. The counsel for the *Bormida* stated that he had been instructed not only to press for costs, but also to ask for the issue of a rule calling upon the owners of the *Viscount* to show cause why they should not be condemned in damages for the wrongful detention of the *Bormida* in consequence of her arrest upon this action, the Registrar to fix the amount of such damage. He submitted that when a vessel was detained in an action, either by malicious or gross negligence, that the parties so detaining the ship were liable for damages for such detention. He submitted that this was a question whether this action had not been brought in a grossly negligent way. The *Viscount* had been lying in the Hooghly for a long time, and her owners or agents must have been aware that compulsory pilotage was the rule on the Hooghly. They were informed, a few hours after the action, by letter, that the collision had been the result of an inevitable accident, and knowing these facts, could it be said that the action had been brought otherwise than grossly negligently? The counsel for the *Viscount* was heard *per contra,* after which his Lordship took time to consider both this point and the one relating to costs, but its result was not known.]

The Lieutenant-Governor of Bengal observed that he concurred in the opinion of the Port Officer that the collision was due to the carelessness of the pilot in charge of the outward bound Italian steamer *Bormida,* and directed that the pilot be reprimanded and warned to exercise more care in future.

218. The British iron ship VISCOUNT [of Liverpool, 1,270 tons register, official number 69298], from Philadelphia to Calcutta, with a cargo of kerosine oil. On the 15th July the ship was moored, head and stern, at Matia-brúj moorings, Hooghly river, discharging her cargo of oil. At 10-10 A.M. the steamer *Bormida,* outward bound, in charge of a pilot, weighed anchor and proceeded up stream a little way, with the view of turning her head round and turned to starboard, thus turning her head round towards the southern bank. When she had got across the river the current carried her down, and as she got about halfway, she put on full speed and went across the river, and the pilot finding that this was likely to bring her into collision with one or the other of

the three vessels (the barque *Ixopo* anchored in the stream, and the ship *Brenda,* and the barque *Helen Scott* at moorings in front of the *Viscount,* moored there) the engines were reversed, but not in time to get sufficient way on her, with the result that the *Bormida* fouled the *Viscount,* causing her considerable damage. After discharging all her oil she went into dry dock and had her bottom and hull inspected. The Surveyor to Lloyds' Agents reported that two bulwark plates on the port side, abreast the after end of the deck house, were slightly bent and fractured; 54′ of topgallant rail on the starboard side broken; 48′ of main rail outside the moulding destroyed; the foretopmast (iron) broken in three places; the foretopmast cross-trees and outriggers bent and broken; the fore chain plate and the dead eyes broken and injured; a scupper pipe broken; the topmast backstays, the braces and the topsail halyard carried away. The vessel was placed in dry dock to ascertain whether she had sustained damage under water by the collision, but the Surveyors could detect no injury. Value of damage to the *Viscount,* R10,000. No loss of cargo. No loss of life.

219. The British Indian schooner VIRGIN MARIA JOSEPH ST. ANNA [of Tuticorin, 82 tons register, no official number], was lying empty at anchor in the Inner harbour of Tuticorin (Gulf of Mánar). At 3-15 P.M. on the 15th July the schooner, owing to strong S.W. winds, suddenly capsized after discharging all her ballast for the purpose of having her bottom cleaned. The next day she was righted and safely anchored. The schooner had no damage done to her hull, but a portion of the rigging was carried away. No loss of life.

220. The British iron screw steamer SAINT ASAPH [of London, 1,284 tons register, official number 87364], from Glasgow to Penang, with a general cargo. On the 16th July at 9-15 A.M., when 10 miles to the eastward of Sokotra island (Arabian sea) a heavy sea burst in one of the vessel's side lights in the fore 'tween deck, and water flowed in for some time before the fact was discovered. As the steamer was in great danger, and going down by the head, the fore hatch was opened, when the crew jettisoned about 100 packages of her cargo, consisting principally of wines, spirits and biscuits, in order to make a way to the broken part and allow of stopping the leak; the hull was considerably damaged. The weather was clear, but the wind was blowing a whole gale from the S.W., and the sea being very high, flowing in a N.E. direction. Value of damage to the steamer and cargo not reported. No loss of life. (No farther information obtainable concerning this casualty.)

221. The British iron ship CONNAUGHT RANGER [of London, 1,153 tons register, official number 67787], from Otago, New Zealand, to Calcutta in ballast. On the 17th July, when the ship was lying moored with head and stern at No. 2 Esplanade moorings, Hooghly river, the assistant harbour master to taking her came on board, and at 4 P.M. of that day unmoored the vessel preparatory into the Hooghly dry dock, Howrah, in tow of two steam-tugs which were in attendance. Whilst being hauled out of moorings at dead slack water the *Connaught Ranger* got foul of the mooring buoy, and her starboard side slightly grazed the outer ebb-buoy; her two 4″ stern hawsers were carried away. She shortly afterwards got clear of the mooring bouy and proceeded up the river to the Hooghly dry dock, and was safely docked at 5-30 P.M. Value of damage to the *Connaught Ranger,* R440. No cargo on board. No loss of life. (The casualty was caused by the carelessness of the assistant harbour master.)

222. The British Indian wooden ship CHETAH [of Calcutta, 769 tons register, official number 49906] from Calcutta to The Mauritius, with a cargo of rice, dhâl, gram and 30 Native deck passengers on board. The ship loaded a complete cargo of rice in bags bound for The Mauritius, and the loading was finished on the 18th July, the vessel being an even keel fore and aft. She was well found in stores and appurtenances, manned by an efficient crew, and in every

way seaworthy. On the 21st she was cast off from the Calcutta moorings by an assistant harbour master and dropped down to Garden reach. On that same day at 8-30 P. M. the pilot took over charge of the vessel, and at dawn on the following day she proceeded down the Hooghly river in tow of the tug steamer *Challenge,* and at noon on the 23rd the pilot left her off the Sandheads, the weather being then fine with slight breeze from the N.E. At about 8 P. M. on that day the wind shifted to the S.W. with heavy squalls, when the master ordered the sails to be shortened, but the wind continued to freshen. On the 24th the ship was in latitude 19° 30′ N., longitude 88° 35′ E. (Bay of Bengal), proceeding due South, when it blew a hard gale with unsteady gusts, accompanied by a heavy confused sea, causing the vessel to labour and pitch greatly and to ship large quantities of water fore and aft. At noon the wind and sea rapidly increased in strength, when the crew reefed the sails. At 6 P.M. the crew stowed the jib and main sail, and it was discovered that the vessel had sprung a serious leak, when the pumps were at once set on. At 4 A.M. on the 25th a tremendous gale burst from the westward ; the crew furled the foresail, and the vessel was hove to under the fore and main lower topsail, but the ship could not be kept up to the wind owing to the seas making clean breaches over her, the leak increased considerably, almost 26″ of water being in the wells. Fruitless attempts were made unceasingly with the help of the crew and passengers to stop the leak, and it was found to increase. At 11 A.M. the ship was put before the wind and both pumps were continually worked, until they began to suck. At that time tremendous seas dashed on board and filled the decks with water, and the crew had great difficulty in manning the pumps every two hours. At 6 P.M. the wind slightly moderated, but the squalls were violent as ever, the sea running very high. Soon afterwards the master finding that the vessel could not be kept free from water, although the pumps were constantly going, deemed it advisable for the safety of all on board to run for Chittagong for shelter. At the same time he ordered the boats to be got out and provisions put in them as a safeguard, in case of having to abandon the vessel. On the morning of the 26th the vessel was hove-to, and on sounding got 45 fathoms, after which the ship was kept on the starboard tack with her head to the southward, the weather still rough with heavy squalls and rain. At 4 A.M. the next day the crew made sail and kept away for Chittagong, and at 8 A.M. sights were taken, and the ship's position was determined to be 21°11′ N. latitude, and 91° 12′ E. longitude. At 2 P.M. the wind fell light, and as a strong ebb-tide was running, she anchored in 10 fathoms, soft mud, with 45 fathoms of chain out and the pumps were set to work when the water was considerably reduced, she, then making 2″ of water per hour. On the morning of the 28th the master hove up the anchor and steered up the Chittagong coast, at noon, the Kutubdea light was sighted abeam, and eventually they anchored off the entrance to the Kornafuli river that same afternoon. The next day she was safely got underweigh in charge of a pilot and moored off the town of Chittagong. There the master noted protest and called a survey on the vessel. On the 1st August the Officiating Surveyor to the port, assisted by a ship-master, proceeded on board the ship *Chetah,* lying afloat in the Kornafuli river, in order to examine the vessel, she having, whilst on her passage from Calcutta to The Mauritius, sprung a leak in her topsides, and thereby damaged her cargo and put into Chittagong for examination and repairs. After a careful survey of the hull they discovered that the vessel had a distinct list to port, and a number of the butts on the port side between the fore and mizen rigging were soft and found several bad leaks near the water line. On sounding the pump well got 17″ of water ; they therefore sealed up the pumps after seeing her pumped out dry, but when they unsealed them, it was found that she had made 18″ of water in

one hour. On removing the hatches they found that the cargo apparently dry and sound, and advised that it be discharged in order to lighten the vessel for a farther examination of the cement and floors. From the 2nd up to the 16th of the same month the crew discharged in all about 4,400 bags of rice. On the following day the Surveyors visited the ship and found that every precaution had been taken to protect the cargo from leakage, she being well and sufficiently dunnaged ; the copper on the bottom showed one and a half sheets above the water line, thus permitting the topside seams from copper to gunwale to be thoroughly examined. They reported that on the starboard side the seams and butts were more or less cracked, the caulking soft, the oakum loose, and several of the seams, especially in the wake of the chain plates, had spewed out the oakum. The seams and butts on the port side were worse than those on the starboard ; the oakum in the seams and butts had been rendered loose from the working and straining of the vessel, and in many places it had been spewed out. A sheet of the metal in the wake of the main chains was removed where the ship showed signs of having strained the most, but it was found that the gulgul was intact and that the seam was hard and perfect ; the decks, the waterways and the hatchway seams and butts, also the covering board and bulwark stanchions were all in good order, but as a preventive measure the Surveyors advised the hardening down and pitch paying the scarphs and butts of the waterway and covering board seams. To render, therefore, the ship *Chetah* seaworthy and fit to prosecute her voyage, it was recommended that a thread of oakum be cut out in the topside seams on both sides from the copper to the gunwale, and the same be well horsed and payed ; the scuppers on both sides to be taken off to enable the seams to be caulked and payed ; the scarphs and butts of the covering board and waterway seams on both sides to be horsed down and repayed ; the vessel made no water since the copper showed above water. They advised that after completion of the repairs the sound portion of the cargo be re-shipped and stowed. On the same day the Surveyors proceeded to Messrs. Nasú Malum's godowns for the purpose of examining a quantity of damaged rice, grain, and dhâl rejected from the cargo of the *Chetah*. It was reported that 945 bags rice, 114 bags gram, and 10 bags dhâl all more or less damaged by sea water, and advised that they be sold by public auction for the benefit of the concerned at as early a date as possible. The weather had been windy and rainy for more than a week, and had stopped all works, consequently she had to wait for fine weather to have her topsides caulked. On the 2nd September the repairs were vigorously continued, as also the re-shipping of the cargo. On the 5th the Surveyors again visted the ship for the purpose of surveying her finally and ascertaining whether the repairs had been executed satisfactorily. They stated that the topside seams from the copper to the gunwale had been well horsed, new oakum given, the seams well filled with gulgul, the scuppers removed, and the seams properly caulked ; the scarphs and butts of the waterway and covering board seams had been hardened down and pitch payed. The pumps were sounded at intervals of 2½ hours, and observed that she had only made 11½″ of water ; the vessel had loaded all her sound cargo, with the exception of 500 bags which remained to be shipped, provided the weather was favourable ; the copper was nearly 15″ above water's edge, so that when the remaining cargo was put on board the copper would still be well above water. Everything as recommended had been faithfully carried out. The Surveyors were of opinion that the ship *Chetah* was in every way seaworthy, and fit to carry a dry and perishable cargo to any port in the world. Value of damage to the ship *Chetah*, ₹2,014 ; cargo, ₹7,937. The 1,069 bags damaged cargo were subsequently sold by public auction and realized ₹4,840. No loss of life.

223. The British iron screw steamer HAY GREEN [of West Hartlepool,

1,208 tons register, official number 86971], from Kurrachee to Stettin, with a cargo of seeds. At 6 P.M. on the 29th July, whilst in Aden harbour (South coast of Arabia), the steamer met with an accident owing to a slight flaw in the propeller shaft; cause unknown. At the time of the casualty the weather was fine, with a smooth sea running, and a light southerly breeze. There the master called a survey on the vessel and the next day the engineer of H.M.S. *Sphinx*, assisted by the Engineer Surveyor of the port of Aden, proceeded on board the *Hay Green*, in order to survey a length of the propeller shafting in which a flaw had been found by the vessel's engineer. After carefully examining the shaft they reported that the flaw was in a longitudinal direction for a distance of 20", commencing 6" from the after coupling and extending to a point halfway in the bearing. They were of opinion that the flaw was superficial, and did not extend sufficiently to hinder the steamer from proceeding on her voyage. The Surveyors recommended, as a matter of precaution, that the engines be not linked up but worked full link and throttled, also that the engines be not run at a greater speed than 50 revolutions, full speed being 58 revolutions. They farther advised that two wrought iron straps (which were attached to the boom derricks) be clamped on the shaft where the flaw existed. Those precautions, together with careful watching, were, in the opinion of the Surveyors, sufficient to enable the *Hay Green* to proceed with safety and to be in a thorough sea-going condition. On the following day (the 31st) the steamer was finally surveyed. The Surveyors reported that they proceeded on board to ascertain whether their recommendations concerning the fitting of clamps to the propeller shafting, made in consequence on a flaw existing in a length of propeller shafting of that vessel, had been properly carried out. They were of opinion that the repairs had been satisfactorily carried out and to the best of their knowledge and belief, therefore the steamer was fit to proceed on a voyage. The *Hay Green* was in quarantine all the time she was at Aden, which port she left after 30 hours. Value of damage to machinery, steamer, and cargo, £160. No loss of life.

224. The French wooden barque INTIMES [of Bordeaux, 462 tons register, official number not reported], from Pondicherry to Calcutta, in stone ballast. On the 30th July the barque in charge of a pilot, and without steam, proceeded up the Hooghly river, and at 5 o'clock the same evening the pilot anchored her a little below the Lower Mud point buoy in 7½ fathoms of water, he intending to get underweigh on the last of the ebb-tide next morning. At 6-20 A.M., on the 31st, the pilot commenced to heave up the anchor, and the vessel swinging before the anchor could be got up, he was compelled to cast to the westward because the wind was to the S.W.; but before the barque gathered headway, she payed right off and took the ground with her head to the N.E.; the Lower Mud point buoy bearing N.N.E., distant 200 yards, and the Upper Eastern Dredge buoy S.W. ½ S. It being then low-water at Kedgeree with 3′ showing, she remained on the sands for two hours, when she floated aft and swung round with her head to the southward. About 8-30 A.M. the barque went off with a stern board, and before she could be got under command again fouled the Lower Mud point buoy, thereby slightly damaging it. The pilot stated that according to the charts there ought to have been good water in the position where the vessel went aground. The *Intimes* safely proceeded up the river the following day in tow of the steam tug *Court Hey*. A Marine Surveyor proceeded on the morning of the 7th August on board the barque *Intimes* lying in the Caledonia dry dock, Howrah, in order to ascertain whether she had taken any hurt by grounding at Mud point, and also by her having subsequently fouled the buoy off that point. The Surveyor reported that from a perusal of the vessel's log-book and from the statements of the master and first officer, it seemed that the barque, whilst proceeding up the river in pilotage charge, grounded on the 31st July, 2 miles above Kedgeree, in

12′ of water, and remained there two hours, but on the flood-tide making she floated and struck heavily against the Mud point buoy which passed right under the vessel's bottom, and on the 1st August the master engaged the tug *Court Hey* and the barque was towed up to town. After making a careful examination the Surveyor found some sheets of the stern metal torn away, and also several chafed off the keel forward; and on the starboard side forward above the garboard there was a hole where the water ran out in a stream. It was advised that the rudder be lifted as the lower gudgeons looked worn and thin, and, if necessary, they should be replaced with new gudgeons. The vessel was docked on the 6th and undocked on the 15th of the same month and on the 14th the barque was finally surveyed whilst in dry dock. The Surveyor reported that on examination it was found that the vessel had been patched up with 49 sheets of yellow metal; two lengths of stern metal renewed; two keel scarph stopwaters renewed; the rudder unshipped; the lower brace renewed, and the one above the same bushed with new brass bushes; and the rudder re-shipped, the steering gear repaired and thoroughly overhauled; the topsides, the waterways round the stanchions and part of the main deck thoroughly caulked; a new brass rod supplied to the head pump; the limber boards renewed with pine 101′.9″×8″×2″; new coal bunk put up with pine planks; and the windlass was taken out and a new cast iron pall-box supplied, fitted, and fastened with old palls fixed into the same after being dressed, and the windlass put back into its place in thorough working order. He found that all the above work had been well and faithfully executed to his satisfaction, the barque *Intimes* was strong, staunch, and seaworthy, being well supplied with chains, anchors, sails, boats, and all necessary stores, and, in the Surveyor's opinion, was a first class insurance risk to any part of the globe. Value of damage to the barque, ₹2,000. No cargo on board. No loss of life. (The casualty was accidental, inasmuch as it was due to a change in the depth of water in the channel.)

225. The British iron screw steamer MEDINA [of Glasgow, 524 tons register, official number 30634], from Chándbali to Calcutta, with a general cargo, and 461 passengers on board. The master stated that on entering the Hooghly river from Chándbali his usual practice was to get Saugor island light to bear S.E. by E. and anchor in the vicinity of the buoy. At 11-30 P.M. on the 31st July, after steering from the Saugor flat buoy N.N.W., making allowance for the flood-tide (which had on this occasion been stronger than he expected, as the vessel was set more to the eastward), the *Medina* rounded the *Tyrone's* stern and turned down towards Saugor island light, being on the above bearing, and put the helm over to round-to to flood-tide, keeping a sharp look-out for the Apex buoy. All hands were on the look-out and standing by the anchor, it being moonlight but very hazy round to the northward, when suddenly the Apex buoy showed up on the starboard bow, whereupon the master immediately ordered the engines to go full speed and righted the helm, but before she could clear it, the flood-tide set the *Medina* on to the Apex buoy, striking the vessel nearly 40′ from the stern on the starboard side. Thereupon the master stopped the starboard engine, in order to allow the buoy to drift past, but it unfortunately hooked the propeller and hung for some five minutes. The engines were worked very slowly astern to try and clear it, but to no avail; the engines were then put slow ahead when it cleared, and the steamer after swinging clear, was anchored. The vessel then hove up, and the master found that the buoy, to all appearance, was all right except the keel bar which had broken off close to the top. As soon as the master considered that he had given the buoy a clear berth he again anchored till broad daylight, for the purpose of ascertaining whether any damage had been done, when it was discovered that the buoy had disappeared. No damage to the *Medina*. No loss of cargo. The value of the buoy, which was totally lost, was ₹1,350. No loss of life.

[A Departmental Committee of Inquiry was held in the office of the Port Officer, Calcutta, on the 17th August, to inquire into the cause of the collision which occurred between the steam-ship *Medina* and the Apex buoy in Saugor roads whilst in charge of the master (a licensed steam-tug pilot for the Hooghly river). The Committee recorded that, having assembled pursuant to citation, the master was called and the papers and correspondence relating to the case read and filed. The master stated that at 11-30 o'clock on the night in question, when he sighted the Saugor flat buoy, there was a stronger flood-tide running than he expected, and steered her N.N.W. The position whence he first saw the flat buoy was distant 60 yards and he continued on that course till Saugor island light-house bore S.E. by E., after which the engines were slowed for rounding-to. Whilst rounding-to the helm was put to starboard, and just then he saw the Apex buoy nearly 4 points on the starboard bow, 250 to 300′ off, and eight minutes afterwards the steamer fouled the buoy. After the collision the master dropped the starboard anchor and veered out 10 to 12 fathoms of cable on it, to try and ease the chain of the buoy, the vessel's head being then N.N.W., but the master on discovering that the moorings of the buoy held the steamer in that position, he backed the starboard engines slow astern, and finding that of no avail went ahead slow with the starboard engine, after which the steamer cleared and swung flood. The master stated that it was customary always to anchor near the Apex buoy. He said that it was not prudent to round-to so close in the vicinity of a buoy at night on a strong flood-tide, but considered that the *Medina* was not up so far as she was. The first officer stated that the vessel passed Saugor island light-house between 11 and 12 P. M. on the 31st July and sighted the Apex buoy 3 or 4 points on the starboard bow a ship's length off, the steamer going slow. The tide was running at the rate of 2 or 3 knots, and there was plenty of room in Saugor roads for turning anywhere. The Committee, after having weighed the evidence, were of opinion that there was no necessity for the master of the *Medina* to have run the risk of fouling the Apex buoy by going so far up Saugor roads on the night in question, thereby endangering the steamer and the lives of every one on board. The Committee recorded that it was impossible for a vessel to judge her positions as to mid-channel in Saugor roads, and the damage or loss of the buoy was the consequence.]

The Committee being of opinion that there was no necessity for the pilot having brought his vessel so far up the Hooghly river; besides the fact of his endangering the steamer and the lives of every body on board by running in so far, the Officiating Port Officer recorded that he was also guilty of having broken the Marine Notification of 1881, and rule 2, clause 3 of chapter VI, of the rules for the guidance of Running Pilots. Considering the gravity of the offence, and the fact of the pilot having been previously censured in October 1884, the Officiating Port Officer recommended that his license as a steam-tug pilot be either suspended for 3 months, or that he be brought to trial under the provisions of Act XII of 1859.

The Lieutenant-Governor of Bengal, after having perused the papers in the Departmental Committee of Inquiry, remarked that the pilot had been guilty of a most serious offence. Fortunately there were no evil results from his conduct beyond the loss of the Apex buoy, but there might have been a fearful catastrophe. After a due consideration of the matter, it seemed to His Honour that, instead of at once directing that the pilot's license as a steam-tug pilot be suspended for 3 months, which punishment appeared hardly adequate to the serious nature of his offence, it would be more satisfactory to bring him to trial under the provisions of Act XII of 1859 (an Act to make better provision for the trial of pilots at the Presidency of Fort William in Bengal for

breach of duty). The Lieutenant-Governor accordingly ordered that a Marine Court of Inquiry be held under the above Act to try the master, a licensed steam-tug pilot.

[A Marine Court of Inquiry was held in the office of the Port Officer, Calcutta, on the 5th, 11th, and 15th September, by the Officiating Chief Presidency Magistrate, under the provisions of Act XII of 1859, for the purpose of investigating the circumstances attending the above collision. The master of the *Medina* was charged on the following counts:—*first,* that he, the said master, on or about the 31st of July, whilst in pilotage charge of the steam-ship *Medina,* through unskilfulness, negligence, or other default, allowed the said vessel to be injured by collision with the buoy known as the "Apex buoy," situated between the upper part of Saugor roads and Mud point, and thereby committed an offence punishable under section I of the schedule of offences and punishments prepared in accordance with section 17 of the above Act; *secondly,* that he on the above date, through unskilfulness, negligence, or other default, caused damage to the said Apex buoy, and thereby committed an offence punishable under section IV of the said schedule; *thirdly,* that he on the above date was guilty of a breach of the rule duly promulgated by proper authority for his guidance as a pilot, and contained in chapter VI, section 2 of the revised rules, for the guidance of Running Pilots, which was as follows:—"Vessels may not be underweigh at night between the upper part of Saugor roads and Mud point under any circumstances," and thereby committed an offence punishable under section XIII of the said schedule; *fourthly,* that he on the above date was guilty of a breach of the rule duly promulgated by proper authority under the provisions of Act XII of 1875 (The Indian Ports' Act), which was as follows:—"Steamers carrying Native passengers under Act VIII of 1876 (The Native Passenger Ship's Act) are forbidden to be underweigh before daylight or after dark between the port of Calcutta and the upper part of Saugor roads;" and thereby committed an offence punishable under section XIII of the said schedule. The counsel for the defence objected to the pilot juror having to serve in this case, for the reason that the accused had a personal altercation as a matter of duty about 9 months since, and had subsequently shown hostility towards the accused by depriving him of 2 or 3 vessels. It appeared to the Judge that the accused was entitled to take the objection, and a pilot of over 20 years' standing was summoned to appear as a juror. A copy of the statement of the grounds upon which such charges were framed, and of the charges themselves, were then handed to the accused, and the Court adjourned for the trial until the 11th. On the Court re-assembling on that day the accused pleaded not guilty to the charges; after each juror had been duly sworn, the Government Prosecutor read the charges to the accused, after which he asked to be allowed to withdraw the first charge, and on permission being given, it was struck out. The Court thereupon ordered the trial to proceed. The witnesses for the prosecution were then examined, and on conclusion of their evidence the counsel for the defence took objection to the farther prosecution of the Inquiry, in respect of the second count, on the ground that the rule under which the accused was charged was *ultra vires.* He argued that section 2 of Act XII of 1859, the authority under which the Lieutenant-Governor of Bengal was empowered to make rules for the observance of pilots, could only be utilized in respect of such acts which strictly fell within the expression *breach of duty;* it was, he farther contended, impossible to include acts which indicated even negligence and unskilfulness within the ordinary meaning applicable to that expression. He said that the Lieutenant-Governor had therefore exceeded the powers given him under the Act in including rules in the schedule of offences which rendered acts of unskilfulness or neglect punishable. The Government Prosecutor was then heard in reply, and after con-

futing the counsel's (on behalf of the accused master) arguments, the Court held the counsel's objection untenable, being of opinion that the Lieutenant-Governor was clearly within the rights imparted to him under the Act in framing the rules under which the accused was duly charged. The Government Prosecutor addressed the Jury on behalf of the prosecution, after which the counsel made a speech on behalf of the accused. The Judge then delivered the following charge to the Jury:—The indictment in this case contained four charges—The first of those had been withdrawn by the prosecution, so its contents need not farther occupy any attention. As regarded the others, it would be most convenient, he considered, to deal with the two final counts, first, reserving what he had to say on the second count for the close of the remarks. The third count then charged the accused with breach of a rule of duty prescribed for the observance of pilots, promulgated under the authority of Act XII of 1859 duly sanctioned by the Lieutenant-Governor, and which was then read. The Judge asked the Jury to accept from him the direction that the formalities connected with the framing and issue of that rule had been duly observed, and that the accused, being a pilot, was bound under prescribed penalties to observe that rule. The question, or rather questions, which the Jury had to consider seemed to have been thus:—(1) Did the action of the accused, in the way he navigated his vessel on the night of the 31st July, constitute a breach of that rule? and (2) if satisfied of such breach, was the act of the accused constituting such breach committed under circumstances which, in the opinion of the Jury, should render him liable to punishment? The Judge said that, as regards the first of those two questions which had been suggested for the consideration of the Jury, the evidence in the case was clear and uncontradicted. The accused himself did not, moreover, deny that his vessel was in motion at night; nor, if the evidence of the River Surveyor was believed, would the Jury have much difficulty in arriving at the conclusion that the portion of the Hooghly river in which the *Medina* was at the time underweigh was, in the estimation of the Marine authorities, somewhere "between the upper part of Saugor roads and Mud point." The next step towards arriving at a conclusion in this matter should, he considered, bring the Jury to the consideration of the point involved in the second question which had been set them. The Jury should ask themselves whether the accused knew, or had good reason to know, that shortly before midnight of the 31st July he was navigating the steamer beyond the upper part of Saugor roads. The evidence on that point was fresh upon their mind, it was not of great volume, and therefore it need not be attended to in detail. Two of the juror members were gentlemen who, from their experience of the navigation of the Hooghly river, were more than competent to arrive at an authoritative conclusion on that point. The Judge therefore contented himself with simply asking the Jury to give that portion of the evidence of the River Surveyor which related to the limits of what he understood as the upper Saugor roads, their serious attention; and farther pointed out to them that, on coming to a conclusion on that subject they must not only satisfy themselves first as to whether the accused did, or did not, know that he was navigating the *Medina* at night outside the upper part of Saugor roads; but should they decide that question in the negative, they should go on to consider whether that ignorance on the part of the accused was the result of carelessness or negligence on his part, or, on the contrary, proceeded from a want of knowledge caused by circumstances not within his control, and which, therefore, indicated no culpable want of care or forethought on his part; the verdict of the Jury on that charge should be regulated on the conclusion they arrived at on the second of those two considerations. As regarded the final count in the indictment, it was sufficient to say that, in the Judge's opinion, it stood or fell upon the conclusion they might arrive at on the immediately preceding count. Here, as in that count, the know-

ledge or sources of knowledge possessed by the accused as to the precise limits of the upper Saugor roads would form the ruling element in the considerations which should regulate their verdict. There remained for consideration the second count in the indictment, which charged the accused with having caused damage to the Apex buoy. The casualty having been caused through his "unskilfulness, negligence or other default," the evidence was clear that the buoy was knocked away from her moorings and had disappeared through being brought in collision with the steamer *Medina* on the night in question. The only question left for their consideration was, whether the facts disclosed in the evidence given in connection with this collision were sufficient to enable them to come to a conclusion that the damage caused to the buoy arose out of the unskilful or negligent conduct of the accused. Obviously they must first form a clear idea in their minds of the precise meaning they intend to attach to those words before applying them to the facts of this case, and here the Judge could give the Jury no definite or fixed rule which would apply indifferently to the construction they should place on those words under every conceivable set of circumstances; for, as the Jury themselves must be aware, the degree of culpability which attached to the acts of a negligent or unskilful seaman must necessarily depend on the facts and circumstances which accompany each separate case. The Jury had to consider the facts calmly and dispassionately, and then put themselves the question whether the negligence or unskilfulness, if any, disclosed by the acts or omissions of the accused were, in their opinion, culpable to the extent deserving of punishment. Although the Judge could not give the Jury any set rule as a guide to the way in which they should approach the consideration of that branch of their duty, yet the Judge would, he thought, with safety indicate to them certain general rules which might help them to their verdict. The accused, they would not forget, was placed in a position of extreme responsibility, and had entrusted to his care the safety of others; the Jury might therefore quite fairly conclude that it was imperative upon him to take all precautions to guard against risk of the security of the lives entrusted to his care, and when he failed in that respect, he was undoubtedly guilty of such culpable unskilfulness or neglect which was punishable under the law. The Jury would not forget also that men accustomed to the perils of the sea grew familiar, and, as the proverb reminded them, were in the end apt to despise danger. Negligence displayed by a person responsible for the navigation of a vessel which was the offspring of daring or over-confidence would, they might safely presume, be of that culpable kind which should merit punishment. To those they might also add the remark made by the Government Prosecutor, that in considering the circumstances which led up to the collision with the Apex buoy it should not only be a question with the Jury how near the accused might have ventured to the buoy without danger, but also how far off he ought to have kept in order to avoid all risk whatsoever. The facts, as detailed by the witnesses connected with the collision, were extremely contradictory, and would merit their careful consideration. The third engineer, who was in charge of the engines at, and immediately before, the occurrence of the accident, spoke to the fact of the *Medina* being at full speed from the time when he took over charge of the engines to the moment of her striking the buoy. The steam pressure was 55lbs., and the engines doing the usual 94 to 96 revolutions. He also emphatically asserted that the first order he received from deck by the telegraph was "stop," and that the jar of the collision and the receipt of that order were almost simultaneous. If the Jury believed the statement made by this witness, it must follow that the *Medina* was actually kept at full steam heading for the buoy, and that the accused only became aware of its vicinity at the moment, or *at least* a *second* or *two,* before the vessel struck the buoy. The evidence of the third engineer was, however, contradicted by that given by the other witnesses in the case on the important question as to the

speed of the vessel at the time of the casualty. The log-book produced by the first engineer showed that the *Medina* was represented as going at easy steam at the time, and he professed to have made that entry on the authority of the witness (the third engineer) the morning after the accident. In connection with that matter the Jury would not fail to mark that a large body of evidence existed, which showed that the *Medina* was preparing to anchor at the moment of the casualty; that she undoubtedly had the first officer and two of her crew forward looking out for the Apex buoy. The Nautical gentlemen on the Jury would probably be in a position to say whether, under those conditions, it was probable that the master kept his vessel at full speed on the top of a 3 knots' tide. Should the Jury come to the conclusion that the *Medina* was under easy steam at the time, there still remained for consideration the question whether, even under those circumstances, the acts of the accused, when seeking an anchorage ground were not indicative of culpable unskilfulness or neglect. It was in evidence that the steamer on her journey towards the Apex buoy passed the steamers *Seagull* and *Tyrone,* two vessels at anchor on the very anchorage ground marked out on the chart as the spot where the accused intended to have anchored for the night. The evidence of the first officer who was on duty at the time, and busy forward with the anchor, was emphatic on the point that there was lots of room for the *Medina* to have swung round to her anchorage between the stern of the *Tyrone* and the Apex buoy. If the Jury believed that evidence, the question would probably suggest itself to them why, with the anchorage ground clearly indicated to the accused by the *Seagull* and the *Tyrone,* and plenty of sea room to turn in, he kept for going ahead bent on actually catching sight of the Apex buoy before the course of the vessel was changed. In connection with that matter they should not forget to note that the night was a dark one, and the Apex buoy when sighted by the three men forward, anxiously peering out into the darkness, was only 20 yards off the vessel's bows. Those seemed to the Judge the principal points upon which the Jury should direct their attention in this case. There might be other considerations which, overlooked by the Judge, would nevertheless be duly weighed by them, aided by the professional experience of those who were sailors by profession. It only remained for the Judge to bespeak the Jury's earnest consideration of the evidence, and left the case with every confidence in their hands. The Judge observed that the Jury having once returned into Court, and being requested to retire a second time and proceed with the farther consideration of their verdict, returned again and informed the Court that they saw no reasonable prospect of their coming to an unanimous opinion on the case. The Judge, however, proceeded to take their verdict on the charges:—*first charge* withdrawn; *second charge,* the Jury were equally divided in the verdict, *two* being for a conviction and *two* for an acquittal; *third and fourth charges,* not guilty. The Judge, under section 16 of the above Act, being called upon to declare his opinion on the facts elicited in the case so far as it referred to the second count of the indictment, the Jury being equally divided in their opinion on that charge, declared that, in his opinion, the charge of causing damage to the Apex buoy by the action of the accused had been duly established, and that the acts which occasioned the collision warrant the presumption that such accident was caused by the default of the accused, such default being of the kind rendered punishable by the rule under which he stood charged with the offence. The Judge ordered that the certificate or license of the accused master (granted him as a licensed steam-tug pilot for the Hooghly river) be suspended for two months, the period of such suspension to be calculated from the day when the accused was temporarily suspended from such duty by order of the Government.]

The Officiating Port Officer recorded that the charges in connection with the trial of the licensed steam-tug pilot of the steam-ship *Medina* were *four*

in number:—*first,* damage to the vessel; *second,* unskilfulness in having caused damage to the Apex buoy; *third and fourth,* having navigated the steamer outside the limits prescribed by the law and thereby endangered the lives of the very large number of passengers besides the crew, and also unnecessarily risking the entire loss of the vessel. The *first* charge, after the Court sat, was withdrawn by the Government Prosecutor, as it would have been extremely difficult to have proved it. With regard to the *second* charge of having fouled the Apex buoy the evidence was most conflicting; the first engineer flatly contradicted the statements made by the third engineer who was on watch, and the evidence of the first officer was at variance with what he stated before the Departmental Committee of Inquiry. The Officiating Port Officer had carefully watched the case from the very onset of the original report coming in from the pilot, and he was inclined to believe the fact of his having fouled the Apex buoy was caused in the following way:—He sighted and passed close to the westward of the Lower Saugor flat buoy, and he therefore understood exactly his position. He then steered N.N.W., stating that he intended to round-to and anchor when Saugor island light bore S.E. by E.; this bearing was below the locality where the position of the Apex buoy was moored prior to 1883, and the pilot was therefore accepting the old position of the buoy as his legitimate anchoring ground, but instead of bringing to where he thought he was, or where he stated he always anchored, it actually came out in evidence that he had his first officer, the serang, and some of the crew looking out for the Apex buoy, so he intentionally meant to anchor his vessel as high up as possible in the face of his having the whole of Saugor roads at his disposal for anchorage. He admitted, as it was in evidence, that it was hazy to the northward, and yet, if the third engineer's story was to be believed, that no order whatever was given to the engine-room to ease the engines, and that the starboard engine was actually brought up fouling the Apex buoy mooring before any order whatever was given regarding the movement of the engines, then it was undoubtedly most reckless navigation. But whether, on the other hand, the story of the chief engineer, the first officer, and others who were examined, were to be believed, was that the pilot courted danger by proceeding up amongst the buoys at a moderate speed on a flood-tide and admittedly hazy night; considering that the chief engineer was asleep; and he admitted that he made up his log on the following day merely from hearsay, the Officiating Port Officer was inclined to believe that the statement made by the third engineer was more likely to be the correct version. With all the evidence, therefore, and a divided Jury under the *second* count, the Officiating Port Officer considered, looking at the case in any way, the pilot was guilty of negligence, and that he did not (with the charge of a very large number of lives) exercise all the caution and care within his power to guard against risk from what he was doing; and the accident by ordinary caution, ordinary skill, and ordinary diligence could have been avoided had proper and reasonable measures been previously adopted. Regarding counts *third* and *fourth* it would be observed that the Court considered him not guilty of breaking the rule under the Native Passenger Ships' Act regarding the limits of Saugor roads. The Court based their judgment on the facts that the limits of Saugor roads had never been laid down officially and published in the *Calcutta Gazette,* and practically the upper limit of Saugor roads could be extended as high up as it was found necessary to place the Apex buoy. The Lieutenant-Governor of Bengal before ordering the pilot to be tried under the Act, enquired whether the Apex buoy was between the upper part of Saugor roads and Mud point, and the Officiating Port Officer reported that he certainly considered it was so within the meaning of rule II, chapter VI of the rules for the guidance of Running Pilots. The plan of the locality, in which was shown the position of the Apex buoy prior to 1883 (which was then considered the upper limits of Saugor roads) and the position as it was at present situated, having been produced, the Officiating Port Officer was of opinion

that although there was an anchorage in that locality, he could in no way construe the Apex buoy as being in Saugor roads. The buoy as at present moored nearly occupied the position of the old Lower Eastern Eden buoy, and the reason that it was moved out of Saugor roads, was to avoid all chances of a similar accident to the present. The Officiating Port Officer farther based his opinion as to the limits of Saugor roads by the official limit of the 8—12 division of the Hooghly river, *i.e.*, a pilot who sailed in a vessel and anchored above the old position of the Apex buoy claimed the pilotage as having completed his work above the limits of Saugor roads. There being a question, therefore, as to the limit of Saugor roads, the pilot received the benefit of the doubt; but taking into consideration the very large number of Native passengers carried in those small vessels, the Officiating Port Officer strongly recommended the Government to amend the Marine Notification of the 25th March 1881, by addition, namely, "that the upper part of Saugor roads, under Act VIII of 1876, should not extend above a line drawn West of the Centre Saugor flat buoy."

The Lieutenant-Governor of Bengal accepted the finding of the Marine Court of Inquiry.

AUGUST 1885.

226. The British iron screw steamer MANORA [of Glasgow, 3,040 tons register, official number 89908], from Calcutta to London, with a general cargo. The steamer under charge of a pilot turned from Garden reach, Hooghly river, a little after 6 A.M. on the 7th August and proceeded down the river. At 6-30 A.M., on arriving at Melancholy point, the pilot eased the engines to half speed, and was taking the *Manora* round in the usual way, when she took a broad sheer to port against her helm, which was at the time hard-a-port. The pilot, however, seeing that the steamer would not answer her helm against the eddy-tide he stopped and backed the engines full speed, but owing to the vessel having a left-handed propeller, she failed to fall off to starboard as required. Before the *Manora* had lost her way her bow took the bank below Akra during the last of the ebb-tide, and 20 minutes afterwards she backed off and proceeded at once on her way down the river. The pilot stated that he considered it would have been most dangerous to have let go an anchor with the way the steamer had on at the time. When the accident happened there was little or no tide, and the pilot was of opinion that the vessel was apparently uninjured, her stern being afloat the whole time, whilst her bow was aground. No damage to the steamer or cargo. No loss of life. (The casualty was unavoidable.)

227. The British iron four-masted ship EARL OF BEACONSFIELD [of London, 2,488 tons register, official number 50357], from Calcutta to Avonmouth, with a cargo of wheat. The vessel moved out of No. 4 Garden reach moorings on the afternoon of the 7th August, and dropped down the Hooghly river in charge of an assistant harbour master, to near Messrs. Gladstone Wyllie's yard and lay at single anchor. The next day (the 8th) the tug steamer *Clive* took the ship in tow at Garden reach preparatory to proceeding to sea. At 6-30 A.M. on turning round at Garden reach under pilotage charge, and when nearly head down the river, the ship's head got into the slack on the northern bank, and the tide holding her on the starboard quarter, the helm was put hard-a-starboard, but she would not answer it, and at 6-50 A.M. the *Earl of Beaconsfield* grounded on the bank just below the Nun buoy at Panchpara. On the flood-tide making the tug passed hawsers and at 11-10 A.M. she floated off and remained at anchor till the next morning off Garden house. At 7-30 A.M. on the 9th the ship was turning round with two steamers, the *Clive* and *Hunsdon,* during the last of the ebb-tide, when the *Clive* unfortunately got both hawsers round her screws; she immediately let go her anchor and the ship

let go both hawsers, but the steamer *Clive* alongside backed the *Earl of Beaconsfield* astern, and both vessels came into collision with each other thereby doing a little damage to the tug, and also to the ship. The pilot, with the consent of the master, brought the vessel back to moorings, as the tides were too strong to leave a day later, also for examination and repairs. On the afternoon of the 9th Lloyds' Surveyor, accompanied by a Marine Surveyor, proceeded on board the ship *Earl of Beaconsfield,* lying at single anchor off the Botanical gardens, in order to make a survey on that vessel, she having taken the ground on the west bank below Garden reach, but floated on the flood-tide, and was towed back and anchored in the harbour. From information received from the master and officers of the vessel, it appeared that the ship ran aground with her bow up on the bank in soft mud, showing her 16′ mark forward and her stern afloat, and took a slight list to port; that she came off easily on the flood-tide apparently without any damage, except that her main rail was started and broken on the port side aft by the stern of the tug *Clive,* on the morning of the 9th, having fouled the ship's bulwarks. The Surveyors after carefully examining the plates and butts outside above water, and the upper deck beam ends in the fore and after holds, there being no cargo between decks in those holds, also the rails, the waterways, the mast coats, and combings of the deck houses, discovered no indication of straining anywhere. They sounded the pumps in the three compartments, *viz.,* the fore, main, and after holds, and found that she had made no water. The Surveyors were therefore of opinion that the ship had taken no hurt by the grounding, and that she was still staunch, strong and seaworthy and fit to proceed on her voyage, but they recommended that she should be placed in dry dock on arrival home, and her bottom examined and painted, as the paint forward where she grounded had probably been rubbed off. The *Earl of Beaconsfield* was aground for 4 hours. Value of damage to the ship and cargo, ₹5,800. The vessel was detained on account of the grounding for about 10 days, not for repairs, but on account of the tides, and also losing her turn for a steamer. No loss of life.

[A Departmental Committee of Inquiry was held in the office of the Port Officer, Calcutta, on the 13th August, for the purpose of investigating the cause of the above casualty, and a charge of misconduct in the discharge of his duties brought against the pilot, who was said to have been under the influence of liquor whilst on board the vessel. The Committee recorded that having assembled pursuant to citation the defendant (a Covenanted Branch Pilot) was called, and the papers and correspondence relating to the case were read and filed. The witnesses for the prosecution were then examined, and on conclusion of their evidence the defendant was asked what he had to urge in his defence. The defendant thereupon made a statement which was recorded by the Committee. He stated that as regards the grounding of the vessel he left it entirely into the hands of the Committee; but for the charge of insobriety, which had taken him entirely by surprise, the only reliable evidence he considered that had been offered was the master's, and he said that it was only his gait which led the master to think that there was anything wrong. Should the defendant's word not be sufficient, he had evidence to prove that through weakness he was unable to get over the side of the Pilot brig, and therefore had to relinquish one of the most remunerative vessels which had then arrived to the pilot of the next turn. The Committee observed that the master stated that on the 8th August the vessel was turning from the south bank in Garden reach, the pilot being on the forecastle at the time himself; the second officer and the leadsman were looking after the steering of the vessel, and the tide was running strong at the rate of 4 or 5 knots an hour. At 6-30 A.M., she was turned round, and the tug *Clive* got fairly ahead of the ship and proceeded down for three quarters of a mile, when the *Earl of Beaconsfield* took

the ground. The pilot up to the time of the accident gave his orders distinctly, but after that he was backwards and forwards from the forecastle to the poop; at 11-10 A.M., the tug took in tow again, when the vessel floated with the flood and anchored off the Botanical gardens in safety. The master then left the vessel and returned with Surveyors at 4 P.M.; an hour afterwards the master again went ashore, but on returning at 10 P.M., he discovered that the vessel had been moved by the pilot a little farther from the north bank to mid-stream. On the following morning (the 9th) at daylight the pilot was prepared to get underweigh in tow of the tugs *Clive* and *Hunsdon*, and at 7-30 A.M., whilst in the act of turning round, the *Clive's* hawsers got foul of her fan, when her master instantly dropped the anchor and the pilot let go both the ship's and tug's hawsers, but the steamer alongside backed into the ship's stern, thereby causing some slight damage to both vessels. The *Earl of Beaconsfield* then dropped astern of a barque and anchored, and at noon returned to her moorings in charge of an assistant harbour master. The master stated he was of opinion that the pilot was slightly under the influence of liquor the first day, and he did not remember having remarked this circumstance to any one, but several of the crew did. He first observed the difference in the appearance of the pilot after the ship took the ground from his gait, which led him to believe that the pilot had too much liquor. The leadsman stated that he joined the vessel at 5 A.M. on the 8th and reported himself to the pilot, who was then on the poop, and was ordered to look after the steering of the vessel, a man belonging to the tow boat being sent to the lead. The ship was as near as vessels usually kept from the bank whilst about to turn, from a little below Messrs. Gladstone, Wyllie & Co.'s yard. The *Earl of Beaconsfield* did not get fair head down the river after the steamer, and at no time up to the moment of her grounding was the *Clive* fairly ahead. After the casualty had occurred he noticed nothing unusual in the pilot's manner, as at noon the leadsman feeling unwell went ashore, and did not return. He did not know at what rate the tide was then rising, and he did not see the pilot do anything or give any order that a sensible man would not have given. The first officer stated that after the vessel struck the ground the pilot's conduct was decidedly very strange, and he did not call any one's attention to it; several orders were given which came to nothing and were countermanded, being unintelligible. The pilot left instructions to be called when the tide turned that night, and on calling him, he answered, but did not get up. On the following day the pilot was clearer in his orders and actions than on the 8th. In the act of turning on the 9th the hawsers fouled the *Clive's* propeller; and the orders given at that time by the pilot were intelligible and proper. After this failure in turning the pilot dropped the ship below the shipping and placed her in safety. The man on the look-out stated that after the pilot went on board on the night of the 7th he enquired for the officers of the vessel, when the witness replied, "I am here," whereupon the pilot asked "who are you," and was told that he was the watchman; thereupon the pilot walked on the poop and exclaimed "my God, all hands are ashore," after which he went aft and spoke to the assistant harbour master. The man who was at the wheel between 4-30 A.M. and 9-30 A.M. on the morning of the 8th stated that he noticed the pilot walking about the decks that day, which gave him the impression that the pilot was either drunk or sick; but all the orders he got from the pilot were faithfully carried out. The Committee after having duly considered all that had been brought before them, were of opinion that to have attempted to turn a sharp vessel like the ship *Earl of Beaconsfield,* 2,488 tons, 338′ long, and drawing 25′ in strong tides in the freshets at Garden reach, was a very serious risk even when in tow of such a steamer as the *Clive,* and they attributed the grounding of the vessel to her having too much way on her when turning. With regard to the question of insobriety, the Committee were unable to state whether the pilot's peculiar gait

and manner was the result of drink or ill-health. The many manœuvres executed by the pilot, as stated in evidence, could not have been carried out by any officer seriously under the influence of liquor. The Committee much regretted that the master of the tug steamer *Clive* was not available for examination, as his evidence would have been most important in guiding them to a decision, the more so as the leadsman, a most essential witness, appeared to show a most obstinate evasion of questions. It would be noticed that in answer to the master of the ship *Vellore* he stated "I could not say whether the helm was hard-a-starboard when turning round. I could not see the tiller;" and when closely questioned by the President he stated, "When the order was given to put the helm hard-a-starboard I looked and saw the man at the wheel put it over. The helm was not shifted again up to the time she grounded." The leadsman did not know whether the vessel turned from the place where she took in tow and weighed anchor, or whether she dropped down at all before turning; whether there was a little or much tide—all circumstances that any young man who took an interest in his profession would not fail to notice, as it was his duty to do.]

The Port Officer recorded that the casualty was due, no doubt, as the Committee reported, to the strength of the tide and the difficulty of turning so large a vessel—length 338′ 2,488 tons—with *one* tug. He should not have thought it necessary to hold a Departmental inquiry, but that the pilot had had many accidents lately, and the master of the *Earl of Beaconsfield* refused to countersign his report. There was not, he considered, any definite evidence produced to show that the pilot was intoxicated, as had been suggested by the master. The leadsman had been reprimanded for the unsatisfactory and evasive manner in which he gave his evidence.

The Lieutenant-Governor of Bengal observed that the Committee were of opinion that the accident was due to the attempt made by the pilot to turn so large a vessel as the *Earl of Beaconsfield* in strong tides with one tug, and that the Port Officer, however, apparently did not consider him much to blame in this matter. Accordingly His Honour considered it sufficient to warn the pilot to exercise more care in future.

228. The British iron twin screw steamer CLIVE [of Glasgow, 572 tons register, official number 87403] was employed as a tug steamer on the Hooghly river. On the morning of the 9th August the steamer took in tow the ship *Earl of Beaconsfield* and proceeded down the Hooghly river. At 7-30 A.M. when in the act of turning off the Botanical gardens, Garden reach, her hawser got foul of the fan; the master immediately let go the anchor and the ship let go both hawsers, but the *Clive* was brought stern on to the ship's port side, striking the *Earl of Beaconsfield* abaft the beam, thereby doing slight damage to both vessels. On the flood tide making the tug towed her back to her moorings at Garden reach. Slight damage to the tug. No loss of life. (The collision was attributable to the strength of the tides, which were strong at that time of the year.)

229. The British iron four-masted ship EARL OF BEACONSFIELD [of London, 2,488 tons register, official number 50357], from Calcutta to Avonmouth, with a cargo of wheat. On the 8th August the ship, under charge of a pilot and in tow of the tug *Clive*, proceeded down the Hooghly river for nearly three-quarters of a mile below Garden reach, but grounded in consequence of the strength of the tides and the difficulty of turning so large a vessel. On the flood making she floated off, and was towed by the steamer till off the Botanical gardens, where she was kept by the pilot at single anchor. Early on the following morning (the 9th) the tug passed hawsers and proceeded down the river, when at 7-30 A.M., whilst turning round at Garden reach with two steamers in tow—the *Clive* and *Hunsdon*—during the last of the ebb-tide, the

Clive unfortunately got both hawsers round her screws, her master immediately let go her anchor and the ship let go both hawsers, but the *Clive* came into collision with the ship *Earl of Beaconsfield*, the tug's stern striking the ship's port bulwarks, whereby the latter vessel's main rail was started and broken on the port side aft. The tug had her bulwarks slightly damaged. Value of damage to the *Earl of Beaconsfield* not reported. No loss of cargo. The vessel was detained on account of the grounding for about 10 days, not for repairs, but on account of the tides, and also losing her turn for a steamer. No loss of life. (The collision was attributable to the strength of the tides, which were strong at that time of the year.)

230. The British iron ship BARON COLONSAY [of Greenock, 1,632 tons register, official number 72398], from London to Calcutta with a general cargo. On the afternoon of the 10th August, the ship, under charge of an assistant harbour master, was proceeding up the Hooghly river from Garden reach. At 3 P.M., the vessel was hove short, and he began dropping her off, intending to go to a clear swinging berth, as the steam-ship *Clan Sinclair* was to take the outside berth. The *Baron Colonsay* came up in the middle of the stream just above No. 8 Calcutta moorings, the *Clan Sinclair* was half in the tier, when the assistant harbour master asked to know which way the steamer was going, whereupon he was informed that the hawser was foul. The assistant harbour master then let go the anchor abreast the ebb buoy off No. 8, intending to bring up just outside of the buoy and thus make the hawser fast to it. Unfortunately the *Baron Colonsay* overran her distance, and owing to the strong eddy-tide the assistant harbour master could not pay out chain fast enough, and she refused to answer her starboard helm. The ship still forging ahead, a fresh breeze caught her on the starboard quarter and swept her across three mooring buoys, which sank immediately, but one of the buoys rose suddenly and fouled a Native boat, knocking it to pieces, the crew of which were rescued by the River Police boats. The *Baron Colonsay* then drifted on to the bow of the steamer *Navarino*, which latter vessel did not receive any injury but considerable damage was done to the ship. The assistant harbour master stated that he did not know that the *Navarino* was in the third berth—which was the allotted berth—but finding no vessel there whilst proceeding up the river, he took the *Baron Colonsay* up higher than the flood buoys off No. 8 Calcutta moorings. The harbour master reported that the *Baron Colonsay* was ordered to be moored in No. 8 Calcutta moorings, third berth, with the view of being subsequently placed alongside No. 3 jetty when available, but owing to mismanagement she was allowed to drift across the ebb buoys off No. 8 Calcutta moorings, whereby she sunk three buoys and damaged the starboard side of her forecastle. Having gone over the mooring buoys, it was feared that some damage might have been done to the bottom; a survey was held after the cargo had been discharged, and the Port Commissioners' divers examined the bottom under water, but found her sound. The Surveyor to Lloyds' Agents, assisted by a Marine Surveyor, carefully surveyed the *Baron Colonsay* afloat on the morning of the 16th September. They reported that all the loose ceiling had been removed for examination of the cement, but they found no indication whatever of damage; the paint outside was chafed by the buoys on the starboard side, but the plates above water were uninjured. They stated that the Port Commissioners' divers examined the bottom under water, but could find no damage except that the paint on the bottom was ruffled and rough in some places, and that the rudder and stern post were uninjured. They were therefore of opinion that the *Baron Colonsay* had sustained no serious damage in her bottom, and that she was still staunch and strong, and fit to carry a dry and perishable cargo to all parts of the globe, but recommended that she be placed in dry dock on arrival at home, when the ruffled and

chafed paint should be scraped off and the bottom coated afresh with good paint. They could not give an unqualified certificate to the effect that the bottom was uninjured; the vessel consequently was placed in the Upper Union dry dock, Sulkea. After having made a careful examination, on the 12th October, it was found that on the starboard side the bottom paint was badly scored and chafed from stem to stern, from the water line to the keel, apparently by the mooring buoys, but there was no indication of slack rivets or any other injury to the plates on that side. A little above, abaft the mainmast, there were marks on the paint showing that a buoy had gone down on the starboard side, passed under the keel, and came up on the port side, denting a plate of the sixth strake of plating from the keel under the twelfth frame abaft the main hatchway; the dent begun on the lower edge of the plate and extended about 20″ upwards, and was 10″ broad and 2″ deep; three of the frame rivets were started, and with the exception of a few chafes on the paint, there was no other damage on that side; and the rudder, pintles, and gudgeons were uninjured. They advised that the ceiling over the damaged part should be removed and the cement cut out for examination of the plate and frame angle inside, and that the chafed paint on the bottom be scraped off and the bottom coated on both sides with good paint as before; the ceiling having been removed, it was found that the frame angle was slightly bent and cracked from one of the reverse bar rivet holes to the upper edge of the frame; the crack was scarcely perceptible, but it went through the upper edge of the angle bar; three frame rivets in the dented part were started and two of the lap rivets were slack. So far as the Surveyors could see on each side of the frame the plate was not broken or cracked but only dented, and they did not think it necessary to have it removed or patched, as the cracked plate was well backed by the reverse bar, and the crack was on the upper edge. They therefore advised that the three defective frame rivets and the two lap rivets be removed and replaced with sound ones and well cemented as before, and the ceiling repaired. They were of opinion that if that was properly done no farther repairs were needed to make the vessel seaworthy; the damaged plate might be taken out and replaced with a new plate when she reached home, should it be considered advisable to do so. On the 13th the Surveyors again visited the vessel to ascertain whether the repairs had been satisfactorily completed. They reported that the repairs had been well and carefully executed, and that the *Baron Colonsay* was then staunch, strong, and fit to carry a dry and perishable cargo to any part of the globe, and in their opinion a first class insurance risk. Value of damage to the ship, ₹ 32,370. No loss of cargo No loss of life.

[A Departmental Committee of Inquiry was held at the Port Commissioners' buildings, Calcutta, by the Deputy Conservator, Hooghly river, on the 19th and 20th August, for the purpose of investigating the cause which led to the fouling of the ship *Baron Colonsay* with three mooring buoys off No. 8 Calcutta moorings, and her subsequent collision with the steam-ship *Navarino*. After perusal of the reports of the assistant harbour master and the master of the *Baron Colonsay,* the witnesses for and against the prosecution were called and examined; the case was entirely investigated with models. The Committee recorded that the assistant harbour master stated that he anchored about mid-stream and halfway between No. 8 buoys, but after the anchor was let go he overran his chain and fetched up somewhere above the moorings; he then hove up and endeavoured to drop down and pick up a safe anchorage, as he did not think it safe at that period of the tide to attempt to go into moorings. The *Baron Colonsay* instead of dropping down shot over against her helm which, consequently, brought the force of the tide on her port bow; she continued to sheer on and bodily to the eastward, although the anchor was on the ground and the helm hard-a-starboard, she fell across three buoys and sank them. The steam-ship *Clan Sinclair* was

between the buoys in the second berth, and the assistant harbour master did not know what she intended to do. The master of the *Baron Colonsay* corroborated the statement of the assistant harbour master regarding the movement of the vessel. He said that he had no fault to find with him; that he carried out his duties in a seaman-like manner; that the accident was caused by an under-current, as the vessel deliberately shot against her helm notwithstanding that the anchor was down; and that he did not consider that the accident could have been avoided. The man at the wheel stated that at the time the ship was being hauled into moorings the helm was hard-a-starboard, and it was never put to port after the anchor was let go. The Committee after a careful consideration of the evidence were of opinion that the accident to the ship *Baron Colonsay* with the three mooring buoys and the subsequent collision with the steam-ship *Navarino* were entirely unavoidable, and no blame was attached to the assistant harbour master. The Committee entirely concurred with the master of the *Baron Colonsay* that the real cause of the collision was that the vessel was caught in an under-current and became unmanageable, and that no skill of the assistant harbour master could have avoided it. The Committee observed that great danger was attendant on assistant harbour masters moving sailing vessels into No. 8 Calcutta moorings during the freshets; the eddies caused by the Hooghly bridge always made it a dangerous manœuvre, and they recommended that in the event of sailing ships being ordered to those moorings during the freshets they should have steam assistance to help them.]

231. The British iron screw steamer NAVARINO [of Glasgow, 2,189 tons register, official number 68694], from London to Calcutta with a general cargo. It was elicited that on the 10th August the steamer was lying moored head and stern in No. 8 Calcutta moorings, third berth, Hooghly river, ready to proceed alongside No. 7 jetty when available. At noon of that same day the steamer was hauled out of the moorings under charge of an assistant harbour master and commenced to drop up, when at 3 P. M. the ship *Baron Colonsay*, whilst proceeding into the moorings just vacated, anchored about mid-stream halfway between No. 8 buoys, but after the anchor was let go the assistant harbour master overran his chain and fetched up somewhere above the moorings; he then hove up and endeavoured to drop down, and pick up a safe anchorage as he did not think it safe at that period of the tide to attempt to go into moorings. The *Baron Colonsay* instead of dropping down shot over against her helm, which consequently brought the force of the tide on her port bow; she continued to sheer bodily to the eastward, although the anchor was on the ground and the helm hard-a-starboard, and fell across the three buoys off No. 8 Calcutta moorings, which sank immediately. The ship then drifted into the bow of the *Navarino*, which latter vessel, however, did not receive any injury, but considerable damage was done to the *Baron Colonsay*. No damage to the *Navarino*. No loss of cargo. No loss of life. (The accident was attributed to the ship *Baron Colonsay* having been caught in an under-current whereby she became unmanageable.)

232. The British iron screw steamer YORKSHIRE [of London, 1,425 tons register, official number 65569], from Singapúr to New York with a cargo of tea. On the morning of the 10th August, when off Aden in latitude 12° 40′ N., longitude 45° 06′ E. (South coast of Arabia), the steamer met with an accident to her machinery, the high pressure eccentric strap having broken. The weather at the time was fine, with a light breeze from the S.E., and the sea smooth. She was immediately got under fore and aft sails, and put back to Aden for examination and repairs. Value of damage to steamer, machinery, and cargo not reported. No loss of life. (The cause of the casualty was not reported.)

233. The British iron screw steamer HIMALAYA [of Glasgow, 910 tons re-

gister, official number 58321], from Rangoon to Madras with a general cargo. At 5-30 A. M. on the 11th August the assistant harbour master boarded the vessel, then lying in the Rangoon river (Burma coast). It was ebb-tide, the weather fine and clear, and the wind a gentle breeze from S. by W.; half an hour afterwards he let go from the buoy and proceeded towards Latter Street wharf slow astern, but immediately afterwards they were stopped and put full speed ahead. At 6-26 A.M. the engines were stopped and ordered slow ahead, but in consequence of the assistant harbour master having given the steamer too much sheer across the tide, the *Himalaya* came into collision with the wharf, her starboard bow striking it 20′ from the upper end. The starboard anchor, which was hanging at the hawsepipe, hooked on to one of the wharf piles, and the sudden jerk carried away the after part of the flange belonging to the hawsepipe, thereby denting in one plate and cracking the anchor below the stock; breaking two frames, and bending the cat davit. After the accident the vessel was moored alongside the wharf. The assistant harbour master accounted for the casualty by the Buoy-vessel being anchored abreast the upper end of the wharf, about 100′ out, and in order to get clear he steadied the vessel's engines when close to the wharf; he then put the helm hard-a-starboard and stopped the engines, but the steamer not answering her helm quickly enough, he went slow ahead again for the purpose of straightening her up; before she could do so the accident occurred. On the 12th the vessel was surveyed, when it was found that the after portion of the lip of the starboard hawsepipe had been carried away, and also that a portion of one strake of plating before the collision bulkhead had been bulged in and slightly fractured, and two of the frames bent and slightly cracked. They were of opinion that the *Himalaya* might safely proceed to sea after having a half-inch plate securely rivetted over the bulged plate. The Surveyors did not consider that the fractured hawsepipe was of any importance, as it was above the main deck, and did not interfere with the integrity of the hull, and besides it did not appear to be so extensive as to prevent the hawsepipe being used in mooring the vessel so long as steam was up. Value of damage to the *Himalaya* not reported. No damage to the wharf. No loss of cargo. No loss of life. (The collision might have been avoided by the assistant harbour master using an anchor in time and straightening the vessel up to the tide.)

[A Departmental Committee of Inquiry was held in the office of the Port Officer, Rangoon, on the 11th August, for the purpose of investigating the conduct of the assistant harbour master in bringing the steam-ship *Himalaya* in collision with the Latter Street wharf, thereby doing some damage to the vessel. The Committee recorded that, having assembled pursuant to citation, the defendant was called and the papers and correspondence relating to the case were read and filed. The witnesses for the prosecution were then called and examined, and on conclusion of their evidence the Committee read their report. The Committee, after having duly considered all the evidence that had been produced in this case, were of opinion that the assistant harbour master was to blame for not having used his anchors and kept them clear and all ready to let go before leaving the buoy; the first officer was also to be blamed in that respect independently of any orders received from the assistant harbour master. The Committee attributed the accident to the anchor not having been used, and considered that, had the engines been reversed sooner and "full speed" instead of "slow," the collision would have been lighter. As this was the defendant's first mishap, and he was a steady officer, the Committee recommended that he be dealt with leniently.]

The Vice-Chairman, after a perusal of the papers in the case, directed that the assistant harbour master be reprimanded. The Port Commissioners having taken into consideration the fact that the assistant harbour master was a sober and steady man, his services should be retained, as the Harbour Department

was short-handed, but he might be kept for the handling of small vessel only.

234. The British iron screw steamer CITY OF CAMBRIDGE [of Glasgow, 3,783 tons register, official number 86729], from Glasgow to Calcutta, with a general cargo. On the 11th August, the steamer, in charge of a pilot, was proceeding up the Hooghly river. At 12-15 A.M. the vessel, when at Diamond harbour, it being then high-water, the pilot considered that he could pass the ship *Bolan,* which vessel was also proceeding up the river in tow of the tug *Challenge,* and thus cross the Eastern Gut, James and Mary's, ahead of her, but the pilot of the *City of Cambridge* finding, when at Luff point, that he could not do so, went slow; the *City of Cambridge* was half a mile behind the *Bolan,* which vessel took a run for Hooghly point, and as the pilot thought that she would either ground or cast off, he ordered the *City of Cambridge* to go full speed, thereby passing well clear of the ship *Bolan* and the tug; the *City of Cambridge,* however, unfortunately sheered towards the *Challenge,* which vessel was beginning to head out for the Mukraputti Lumps. On finding that the *City of Cambridge's* sheer would bring the two steamers in danger of a collision, the pilot repeatedly hailed the tug to stop, but she continued to go on, when the *Challenge* came into collision with the *City of Cambridge,* striking the latter vessel on the starboard bow. The *City of Cambridge* sustained very slight damage only, *viz.,* an iron stanchion on the forecastle head and two davits in midships on the starboard side bent; a plate of the strake of plating below the sheer strake in midships slightly dented; and the flange of a scupper on the starboard side torn off. No survey was made on the vessel, but the damage was made good at home at a cost of £4, the dented plate not being repaired. No loss of cargo. No loss of life. (The collision was attributable to an error of judgment on the part of the pilot of the *City of Cambridge,* in having attempted to cross the bar at James and Mary's with the other vessel so close ahead.)

[A Departmental Committee of Inquiry was held in the office of the Port Officer, Calcutta, on the 21st and 22nd August, to inquire into the circumstances attending the collision between the steam-ship *City of Cambridge,* proceeding up the river, and the steamer *Challenge*—a tug engaged in towing the ship *Bolan*—also going up the river. The Committee recorded that, pursuant to citation, the pilots of the two vessels were called and the papers and correspondence relating to the case were produced. After perusal of the reports of the pilots of the respective vessels by the Committee, the witnesses were called and examined. The Committee observed that the steamer *City of Cambridge* was proceeding ahead full speed, off Diamond harbour, and when the tug *Challenge,* towing the ship *Bolan,* was hauling over towards Luff point, the engines were eased, and the tug with the ship in Hooghly bight was steering for the *Waterloo* wreck buoy. The master of the *City of Cambridge* stated that the *Bolan* appeared to sheer at the white buoy, but after passing the *Waterloo* wreck buoy she took a run for Hooghly point, thus bringing the *Challenge* broad on the port bow. At that time the *City of Cambridge* was in the vicinity of the wreck buoy with her helm steadied and going slow, but the pilot on observing that the *Bolan* had sheered, at once ordered the steamer's engines to go full speed ahead. There appeared to be a 2-knot flood-tide when the *City of Cambridge* passed the wreck buoy, and she then rapidly approached the tug, and shortly afterwards sheered in towards the bank; the *Challenge,* which was then nearly 3 or 4 points on the starboard bow, at once starboarded the helm and continued going full speed with her engines, when she was hailed by those on board the *City of Cambridge* to stop, but no notice was taken, and subsequently the bluff of the steamer's starboard bow fouled the bluff of the tug's port bow. The *Challenge* continued going ahead, and after passing along the *City of Cambridge's* side, the two vessels separated and went clear. The

leadsman on board the *City of Cambridge* stated that he was in the chains on the starboard side when rounding the *Waterloo* wreck buoy, and the least water she carried in the Eastern Gut was 5½ fathoms, and that no other cast of the lead was taken until the vessel got to Nurpur point, as the lead line had to be shifted to the port side. The third officer of the *City of Cambridge* said he was on the starboard side of the bridge attending to the telegraph at the time. Just previous to the accident the *Bolan* was parallel with the bank, and the tug's paddles were moving ahead, but did not notice how her helm was, the hawsers being still fast to the ship. The master, the pilot, and the first officer hailed the tug to stop her engines, but she did not do so as her paddles were still moving ahead, and within half a minute the collision occurred. The man at the wheel stated that the steamer's helm was put hard-a-starboard for 3 or 4 minutes before the casualty happened; but the helm did not have its usual effect, as she was very slow answering it. The third engineer, who was in charge of the engines at the time of the accident, said that at 12 o'clock the steamer was going slow, and three minutes afterwards she went full power, which speed was continued up to 2-35 P.M. The master of the ship *Bolan* stated that before his vessel was parallel with the bank, the accident happened. He considered that it was quite necessary for the *Challenge* to have kept on full speed up to the moment of the casualty in order to pluck the ship clear of the bank. At the time of the accident the *Bolan* was canting from the bank being very close, and was letting go the hawsers, and immediately after casting off the ship, made sail and proceeded along well until the tug came ahead again. The master of the ship noticed particularly that the tug was stopped at the moment the collision took place, but immediately before, the tug was about 3 points on the starboard bow and twice her length off the *City of Cambridge* when she stopped, and the steamer would have cleared the tug from that position in about 2 minutes at the rate of speed she was going. The pilot of the steam-tug *Challenge* said that he had the *Bolan* in tow, and when just above Luff point the Hooghly tidal semaphore showed 21′, the tug was then going full speed and the *City of Cambridge* was below Hospital point, but when the *Bolan* took the sheer towards Hooghly point the steamer was below the wreck buoy; the tug just before the collision recovered the ship from her sheer; the object of the pilot in going full speed was to recover the ship. He did not consider that the collision would have been avoided by stopping the tug when hearing the hail; there was no steam blowing off at that time, but the pilot of the tug gave the order to stop the engines when the *City of Cambridge* was distant about 200′, which order was carried out, the helm being also put hard-a-port before and after the casualty. He said that the pilot of the *Bolan* did not give him any instructions with reference to the impending collision; the order given by the tug at that late period was of no use in preventing the accident. The engineer of the *Challenge* said that previous to the casualty the tug was going full speed, and just 2 minutes after the order was given to stop and ease the engines, the collision occurred. The pilot of the *Bolan* stated that the *City of Cambridge* was at anchor at Saugor when his vessel left, and when he was at Diamond harbour the *City of Cambridge* was in the Bellary channel; when at Luff point, the steamer was then in the vicinity of Hospital point, and was overtaking the *Bolan* rapidly whilst rounding the wreck buoy. Shortly after passing the buoy the ship took a very heavy sheer towards Hooghly point, thus bringing the *Challenge* broad on her port bow; the pilot of the *Bolan* thereupon ordered the tug to let run her port hawser and to go full power, which manœuvre therefore had the effect of preventing the ship running on the flat, and so partially recovering the steam-tug. The *Challenge* was towing the *Bolan* at the rate of 7 knots an hour before the sheer, but the ship's way was reduced to 3 knots by the sheer. The *Bolan* was abreast the Index piles when she was

recovering her sheer, and the *Challenge* was then between the Nos. 3 and 4 tracks fast recovering and proceeding ahead; the *City of Cambridge* just at that moment was rounding the wreck buoy, and was rapidly approaching the tug. The pilot of the ship did not hear any whistle or hail from those on board the *City of Cambridge,* but did not issue any orders to the tug at that time, because if she had stopped a minute before the casualty there would have been great danger of the *Bolan* grounding. After casting off the tug, the pilot of the ship made sail and went on without the assistance of steam up to Fulta point, when the *Challenge* came ahead and took her in tow to Fisherman's point, where the tug, on account of the damage received, cast off and anchored, and the following day proceeded up to town (Calcutta) safely. The Committee, after a careful consideration of the evidence in the case, were of opinion that the pilot of the steamer *City of Cambridge* acted imprudently in having followed up the ship *Bolan* in tow of the steam-tug *Challenge* so closely, especially at a place like the entrance to the Eastern Gut, where heavy vessels particularly, were always liable to take a heavy sheer when proceeding up the Hooghly river on spring flood-tides, and where large steamers going at a high rate of speed were not always controllable, and the Committee attributed the collision of the steam-ship *City of Cambridge* with the tug *Challenge* entirely to such imprudence. The Committee recorded that they considered the master of the tug in no way to blame.]

The Officiating Port Officer recorded that the circumstances of the case appeared to be that the pilot whilst in charge of the steam-ship *City of Cambridge* when at Diamond harbour, and proceeding up the Hooghly river, considered that he could with his vessel pass in safety the ship *Bolan* in tow of the tug *Challenge,* also inward bound, before they got to the James and Mary's bar; but when at Luff point, finding that he could not do so, he eased his steamer down to slow. The *Bolan* in tow of the *Challenge* got across the bar in the Eastern Gut, but when right abreast the Hooghly point she was caught in an eddy-tide and ran for the point, practically taking charge of the tug, and the two vessels, that is, the ship *Bolan* and the tug *Challenge,* were then out of the navigable tracks. To prevent the *Bolan* going ashore the tug had then to go ahead full speed to extricate the ship, and this manœuvre was carried out in a seaman-like manner. The pilot of the *City of Cambridge,* when he saw the vessels in that position, and having *three* clear navigable tracks across the bar open to him, undoubtedly considered that in that locality, and with such a large vessel, it would be safer to go on, not doubting that he could get by without fear of collision. Had his vessel been entirely under control he would have had plenty of room to pass both ship and tug with safety; but unfortunately the *City of Cambridge* also took a sheer to starboard; or, in other words, closed on the tug, the result being a collision, whereby the latter vessel was seriously damaged. The whole question hinged on a matter of the Rule of the Road, and it was very distinctly laid down that the overtaking vessel should keep out of the way of the overtaken ship, and there was no question of doubt that the *City of Cambridge* was the overtaking ship, but at the same time it had been held that two steam-ships proceeding in the same direction, but with unequal speed, the vessel steaming slowest should, when overtaken, take certain steps to enable the other to pass. In this particular case, it seemed that the pilot of the *Bolan* and the master of the tug were both too much engaged with their own vessels, independently of their having no room to give the large steamer to pass in order to assist the *City of Cambridge.* The next point that arose was, should the pilot of the *City of Cambridge* have stopped, and, if necessary, gone astern (when he found the vessels ahead of her were in the predicament stated in the evidence) in accordance with Article 18 of the Rule of the Road, every steam-ship when approaching another vessel, so as to involve risk of col-

lision, should slacken her speed or stop and reverse, if necessary. The Officiating Port Officer was of opinion, considering the locality and the size of the *City of Cambridge,* that it would have been a very dangerous proceeding to have attempted to do so. Moreover, it must be borne in mind that reversing the screw whilst the vessel had headway on would always diminish the turning power of the helm, so that it would not have been a prudent step to have taken, but the Officiating Port Officer considered that the *City of Cambridge* should certainly have eased right down to dead slow earlier than she did; in fact, just have kept steerage way on the vessel, so that if a collision was inevitable the shock would have been minimised. The Officiating Port Officer entirely agreed with the Committee that it was decidedly a most imprudent step for the pilot of the *City of Cambridge* to have taken, and he thus committed a breach both of the Rule of the Road, and rule 4, chapter IV of the Rules for the guidance of Running Pilots. The direct cause of the collision was an error in judgment on the part of the pilot of the *City of Cambridge* in having attempted to cross the bar with other vessels so close ahead; but under the circumstances mentioned, and having regard to the pilot's long service of 32 years, and the very few accidents that have occurred to vessels under his charge, the Officiating Port Officer suggested that the Government might be pleased to reprimand him, which, for an officer of his long standing, he considered would meet the case.

The Lieutenant-Governor of Bengal remarked that he accepted the Officiating Port Officer's opinion, and the finding of the Departmental Committee of Inquiry, that the collision of the steamer *City of Cambridge* with the tug *Challenge,* which vessel was towing up the ship *Bolan* in the Eastern Gut, was due to an error in judgment on the part of the pilot of the *City of Cambridge,* in having attempted to cross the bar with other vessels so close ahead. Having regard, however, to the pilot's long service, and the very few accidents which had occurred to vessels under his charge, His Honour accepted the Officiating Port Officer's recommendation that no further punishment than a reprimand should be imposed on him.

235. The British iron paddle steamer CHALLENGE [of Calcutta, 257 tons register, official number 49319], was employed as a steam-tug in the Hooghly river. On the 11th August she was towing the ship *Bolan,* under charge of a pilot, up the Hooghly river. The *Challenge* was going full speed, and when just above Luff point the Hooghly point tidal semaphore shewing 21′ the *City of Cambridge* was proceeding up the river, and was then below Hospital point. At 12-15 A.M. the *Challenge,* with the ship in tow, was crossing the James and Mary's to the southward of No. 3 track, Eastern Gut, when the *Bolan* took a sheer for Hooghly point, and the tug also sheered to port, the *City of Cambridge* being then below the *Waterloo* wreck buoy. The pilot of the *Bolan* sang out to let go the port hawser and go full speed. Whereupon the pilot of the tug slacked up her port hawser, put the helm hard over to port, and went full power with the object of recovering the ship. The pilot of the *Challenge* on observing that a collision was inevitable, eased and stopped the engines, but to no effect, as, whilst in the act of recovering, the *City of Cambridge,* which vessel was proceeding up astern of the tug, fouled the *Challenge.* The tug first struck bow to bow, then her paddle box struck the side, and the *City of Cambridge* after passing along her side, went clear. The *Challenge* had her bulwarks stove in from the waterway up, round the bows, the cathead broken, the fluke of the bower anchor carried away, the awning stanchions bent, the paddle box and the paddle wheels damaged, &c., estimated value ₹3,000; but all the damage was above deck and did not stop the steamer from running. No survey was made on the vessel. No loss of life. (The collision was attributable to an error in judgment on the part of the pilot of the steamer *City of Cambridge* in having

attempted to cross the bar at James and Mary's with other vessels close ahead.)

236. The British iron ship ORCHOMENE [of Liverpool, 1,542 tons register, official number 84140], from New York to Calcutta, with a cargo of kerosine oil, arrived up the Hooghly river on the 26th July, when she was anchored by the assistant harbour master at No. 6 Matia-brúj ghât moorings. On the 11th August she was discharging the cargo of oil, when at 11 A.M., in consequence of the heavy bores, she lost her after mooring hawsepipe and the chain damaged her bulwarks. On the 17th September, after having discharged all her cargo, she was hauled out and placed in No. 5 Esplanade moorings, to load a full cargo of wheat for the Bristol Channel. There was no survey made on the damage, but she was repaired, and left Calcutta on the 21st October. Value of damage to the ship, ₹1,000. No loss of cargo. No loss of life. (The casualty was accidental.)

237. The Italian wooden barque ATTILIO [of Genoa, 1,018 tons register, official number 2770], from Akyab to The Channel, with a cargo of rice. The barque had loaded a full cargo, and on the 30th July dropped down Akyab or Arakan harbour (Burma coast), in charge of a pilot and anchored at 3 P.M. abreast Mr. Woodward's house, South of the lower black buoy, in 4½ fathoms of water with 45 fathoms of port chain out. After having instructed the first officer to drop the starboard anchor should the vessel drag in the least, the pilot went and informed the master, who was on shore, that he had dropped the vessel down. On the morning of the next day the pilot boarded the barque to be ready, thinking that the wind might prove favourable, for sailing out. At 8 A.M. sail was set and the crew hove in 15 fathoms of chain, the wind at that time being East, but it soon hauled to S.S.E. and fell light, when the pilot ordered the sails to be furled and paid out the 15 fathoms of chain again. At 7 A.M. on the 6th August the anchor was hove up, but finding it foul, the starboard anchor was dropped and 45 fathoms of chain veered on it; this being done on the ebb-tide caused the vessel to shift about a couple of lengths farther down, but left her in the same depth of water, *i.e.*, 4½ fathoms; and the pilot after clearing the port anchor went on shore that afternoon. The barque was detained in the harbour by stress of weather and unfavourable wind long after she was ready for the voyage, the pilot and the master were watching their opportunity to take the vessel out to sea. On the 10th the pilot went on board at 6-30 A.M., and finding that the wind was S.S.E. he told the master that it was impossible to sail out, whereupon the master decided to take steam, and accordingly went ashore to make arrangements for a steamer, the pilot going on shore at 8 A.M. At 2 P.M. the master met the pilot, telling him to be on board in time, as the mail steamer *Calcutta* would be alongside at daybreak the following morning. In reply the pilot informed the master that he would be on board at 3-30 A.M. At 3 o'clock on the morning of the 11th, whilst the pilot was getting ready his boat to go on board he observed the *Attilio* ashore, abreast Mr. Woodward's house; he then went and called the pilot of the *Calcutta*, informing him of the occurrence. They both hastened on board, arriving at 4 A.M., and shortly afterwards the master and the pilot of the *Calcutta* left the barque together, leaving instructions to the pilot of the *Attilio* to stop on board and try and get her off; the vessel at that time was lying head on to the shore with her stern to the S.E., and as the flood-tide made she swung round with her stern to the northward, when the pilot had the stream anchor run out from the port bow and hove taut. Subsequently the steamer *Dolphin* went to her assistance, but was useless because of her small power and every endeavour was made to get her off at high-water without success. The crew, in the meantime, began discharging the cargo as rapidly as possible, with assistance from shore, in order to ease her and try to get her afloat. On the following morning the

Port Officer went down on the beach and ordered the pilot to slip the bower anchor should there be any chance of floating her. Whereupon the pilot hove in 15 fathoms of chain and remained by the vessel till the night high-water, when the barque commenced to move; the crew then hove in the starboard chain and the stream anchor, and the *Attilio* swung round with her head to North. At 8 A.M. on the 13th the pilot in heaving up the starboard bower anchor found only 15 fathoms of chain, thus making with the 15 fathoms hove in on the previous day only 30 fathoms, whereas the pilot left the vessel on the 6th with 45 fathoms of chain out. At 11 A.M. that day the steamer *Dolphin* went alongside and endeavoured to run out the starboard bower anchor, but only succeeded in carrying it 50 yards from the barque's bows and there dropped it and hove it taut; another stream anchor was got ready for running out, but the ebb-tide being too strong the idea was abandoned. On the morning of the 14th the crew ran out the stream anchor, which had been got ready on the previous day, and hove taut on it, and after having discharged a considerable portion of the cargo, on lifting the starboard bower anchor the *Attilio* floated off, when the pilot proceeded up the harbour under sail. On the 17th the rest of the cargo being cleared out, the Surveyors proceeded on board the barque for the purpose of ascertaining the extent of the damage she had sustained. After an examination it was found that she was making a good deal of water, but the pumps having been kept going the damage to the cargo was not likely to be very heavy. Of the cargo, 7,840 bags of rice were apparently sound, 3,856 bags slightly damaged, and the rest badly damaged; the damaged portion was recommended to be sold at once for the benefit of the concerned. The Surveyors were of opinion that the expense of repairing the vessel would amount to more than she would be worth when repaired; they accordingly condemned her, and advised that she be sold by public auction. The barque was not sold, and sailed from Akyab on the 24th November for Genoa in ballast, after having undergone provisional repairs. Value of damage to the *Attilio*, £4,000; cargo, £1,500. The whole of the cargo landed from the vessel was sold by auction, and realized ₹54,151. No loss of life. (The pilot, it seemed, anchored the barque in too small water, consequently, on the spring ebb-tide, having only 2′ under her bottom, she became unmanageable and dragged ashore; the *Attilio* drove slowly during the night unobserved to any one on board, and the able-bodied seaman on watch did not report to the master that she was dragging until he found her aground.)

[A Marine Court of Inquiry was held in the Court of the Deputy Commissioner, Akyab, on the 19th and 20th August, by the District Magistrate, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances connected with the stranding of the above vessel, and a charge of negligence in the discharge of the duties brought against the pilot, who, it was reported, was not on board when the accident occurred. The Court recorded that having assembled pursuant to citation, the defendant (a licensed pilot of the port) was called and the papers and correspondence relating to the case were read and filed. The Court on the 19th made a formal investigation, and after taking the evidence of the master, the pilot, and of others whose evidence appeared to be material, adjourned till the next day (the 20th), in order that they might consider their finding. The master stated that the barque *Attilio* dropped down the harbour in charge of a pilot and anchored a quarter of a mile South of the lower black buoy, after which the pilot, without the permission of the master, went ashore, and every morning returned on board. On the 10th August, the master was on shore settling accounts with the Agent relative to the vessel's departure at daylight the following morning. About 3-30 P.M. on that afternoon the master went on board, and was informed that the vessel had dragged her anchor owing to

the exceptionally strong spring-tide two ships' lengths into 24′ of water, to the S.S.W. of the black buoy, but she had ceased dragging in consequence of more chain having been paid out by the first officer. He hove in some chain, leaving about 45 fathoms of cable out, the helm being a-port; the wind was on the starboard quarter, blowing light from S.E. The barque went ashore with her head up the river, and when the flood made she swung round, but her bow remained fixed on the sand. There were no precautions taken on the night of the 10th to prevent the ship dragging again, but there were general orders issued; at midnight the barque dragged less than a quarter of a mile. He considered it not necessary to send a boat for the pilot as the signal for him was hoisted and had been flying till dark. At 2 P.M. the master met the pilot and asked him to come off with him in his boat, but he said that it was not necessary for him to go on board and sleep there, and that he would go the next morning. Shortly after this the master, on receiving information that the vessel was dragging, drove off to the pilot's house before going on board; and was told that he was not at home. Before the casualty occurred the vessel, whilst lying at anchor, never obeyed her helm but kept sheering about, and on asking the pilot to shift her to another berth, he said that she was quite safe in that place. On the night of the 10th, the master before retiring ordered the anchor light to be kept burning and a good look-out. Between 3 and 4 A.M. on the 11th, the man on watch called the master, saying, that the vessel was aground; the master came up and immediately sent off for the pilot, but in the meantime the other anchor was let go to prevent her from getting farther ashore, and he laid out a small kedge anchor with 100 fathoms of rope and tried to pull her off, but in vain; the small steamer *Dolphin* went to her aid, but had not sufficient power to drag her off. The barque, however, eventually floated on the 14th, after lightening by discharging a part of her cargo. The master said that he did not apply for the services of the steamer *Calcutta* in the port at the time to get his vessel off because she was at the wharf, and he hoped to get off at high-water by means of the kedge anchor. The Court observed that the *Attilio* after loading was dropped down by the pilot and anchored South of the black buoy in 4½ fathoms of water with 45 fathoms of cable, the vessel drawing 22′. On the afternoon of the 10th, the pilot being on shore, the barque dragged on the strong spring ebb-tide into 24′ of water. A signal was made for the pilot, but he did not put off, and during that same night the vessel again dragged her anchor and got on shore. She was subsequently got off on the 14th, with the assistance of the Marine Authorities after discharging a part of her rice cargo. The Court after having duly considered all the evidence that had been brought before them, were of opinion that the blame rested primarily with the pilot in having anchored the barque *Attilio* in an insecure position, leaving her there during a strong spring tide, and then neglected to go on board when she had shifted her berth by dragging. He ought to have been on board on the evening of the 10th, to render assistance by removing the vessel from the dangerous position she had got into. The Court were farther of opinion that nothing which the master could have done would have prevented the barque from going ashore, and that he was in no way to blame for the accident, but considered that seeing the vessel had already dragged her anchor in the afternoon, a stricter watch ought to have been kept; but no punishment was inflicted.]

The Chief Commissioner of British Burma in reviewing the proceedings of the Court, directed that an investigation be held under the provisions of section 6 of Act XII of 1883 (British Burma Pilots' Act), for the purpose of inquiring into the charges brought against the pilot who, in the opinion of the Court, was primarily responsible for the accident.

[A Special Court of Inquiry was accordingly held in the Court of the Deputy Commissioner, Akyab, by the District Magistrate on the 2nd September, for the

purpose of investigating the conduct of the pilot in the discharge of his duties. The pilot was charged by the Court on the following counts :—*Firstly*, in that the pilot showed a want of judgment in having anchored a vessel of the *Attilio's* draught in such an unsafe position; *secondly*, in that he wilfully neglected to place the ship in a better position when he knew that she was in danger of dragging her anchor; and *thirdly*, in that he wilfully omitted to perform his duty in not having gone on board to render assistance on the afternoon of the 10th August, when he saw that the *Attilio* had dragged into danger. A copy of the statement of the grounds upon which such charges were framed and of the charge itself were then handed to the defendant—a licensed pilot for the port of Akyab. The Court recorded that, having assembled pursuant to citation, the defendant was called and the papers and correspondence relating to the case were read and filed. The witnesses for and against the prosecution were then examined, and on conclusion of their evidence the defendant was called upon to state what he had further to urge in his defence. The Counsel on behalf of the accused thereupon addressed the Court. He stated that the defendant took the *Attilio* down the Arakan river on the 30th July and anchored her in the harbour of Akyab in 26′ of water, when he thought that the vessel was perfectly safe, as was sworn to by the master and first officer. The evidence given by the other pilots should be received with caution. The damage done to the barque was due to the negligence of the vessel's crew and not to that of the pilot. The accused knew that the *Attilio* had to take steam on the following morning, and was under no anxiety that anything would happen to the vessel in the few hours which intervened, as she had been lying safely a long time there. The defendant produced no witnesses for the defence. The Court after having duly considered all that had been brought before them, were of opinion that the pilot showed a want of judgment in having anchored a vessel of the *Attilio's* draught in the position in which he placed her, and left her there when he knew that she was in danger, being thereby guilty of gross neglect of his duty as a pilot. The Court recommended that the accused be deprived of the powers of a licensed pilot in respect of vessel's drawing more than 18′ of water for a space of 12 months.]

The Commissioner of the Arakan Division in forwarding the papers recorded that he considered it necessary to enhance the Court's award by directing the cancelment of the pilot's license.

The Chief Commissioner of British Burma remarked that after taking into consideration the warning given to the pilot in 1883, when he grounded the ship *Berkshire*, he confirmed the Commissioner of Arakan's order, and directed that the pilot's license for the port of Akyab be cancelled.

238. The British iron barque ROYAL ALFRED [of Liverpool, 1,188 tons register, official number 45900], from New York to Calcutta, with a cargo of kerosine oil. On the 11th August the barque was lying moored, head and stern, at No. 4 Matia-brúj moorings, Hooghly river, discharging her cargo of oil. At 11-10 A.M. the ship *Earl of Beaconsfield*, also lying at the same moorings, parted one of her chains during the bore (heavy spring-tides) and swinging round fouled a buoy astern of the *Royal Alfred* and sunk it, and her heel came into collision with the stern mooring chain of that vessel. No damage to the barque *Royal Alfred*. No loss of cargo. No loss of life. (No account of this casualty was received either from the Port Commissioners or the Agents of the vessel.)

239. The British iron four-masted ship EARL OF BEACONSFIELD [of London, 2,488 tons register, official number 50357], from Calcutta to Avonmouth, with a cargo of wheat. The ship, on the 8th August, under charge of a pilot and in tow of the steam-tug *Clive*, proceeded down the Hooghly river, and

in attempting to turn in the strong tides in the freshets grounded at Panchpara, some three-quarters of a mile below Garden reach, and on floating off 4 hours afterwards the tug turned her round and towed her up to the Botanical gardens, where the tug was cast off and the ship anchored for the night. On the next day (the 9th) the ship was turning round with two tugs, when the *Clive* unfortunately got both hawsers foul of her propeller, whereupon the master of the steamer dropped the anchor and the pilot let go both the ship's and tug's hawsers, but ineffectually, and the two vessels came into collision with each other. The pilot, with the consent of the master, brought the vessel back to moorings as the tides were too strong to leave a day later, also for examination and repairs. On the 11th, whilst lying at No. 4, Matia-brúj moorings in the Hooghly river, she parted one of her mooring chains during the morning's bore (heavy spring-tides), and in swinging round she fouled a buoy astern of the barque *Royal Alfred* and sunk it, and her heel took the stern mooring chain of that vessel. The *Earl of Beaconsfield* also had her bulwarks ripped by her own mooring chain, in consequence of the mooring pipe having broken. Value of damage to the ship and cargo not reported. Value of damage to the buoy not reported. No loss of life. (No account of this casualty was received either from the Port Commissioners or the Agents of the vessel.)

240. The French iron screw steamer GRAVILLE [of Havre, 1,564 tons register, official number not reported], from Pondicherry to Marseilles, with a cargo of ground-nuts and seeds. At 6 P.M. on the 13th August the steamer was going 7 knots per hour, and when 6 miles S. by E. $\frac{3}{4}$ E. from Komarie point, she struck on a coral reef off the S.E. coast of Ceylon. The vessel did not stop but passed over the rock; soundings taken gave 10 fathoms, and it was discovered that the ballast tank had been stove in, and in a short time it was filled. The master stated that he had verified the position of the vessel at 6 o'clock on the evening of the 13th, the Aganis Peak being visible to the westward. He gave the following as the exact position of the rock:—Latitude 6° 54′ N., longitude 81° 54′ E., about $2\frac{3}{4}$ miles off the nearest shore. After the accident the vessel proceeded slowly into Colombo harbour, at which port she arrived on the 15th, and commenced rapidly discharging her cargo. On the morning of the 24th the Surveyor to the port, accompanied by a master of a steam-ship, proceeded on board the *Graville* lying afloat in the harbour of Colombo, in order to survey and report upon the damage sustained in consequence of her having struck on an unknown rock off the S.E. coast of the colony of Ceylon and also to recommend the repairs necessary to enable the vessel to proceed to her destination. After making a careful examination it was reported that there were two rugged and gaping rents in the bottom plate in the centre of the ballast tank on the port bilge; one nearly 1 foot long between the third and fourth frames from the forward bulkhead, and the other 2′ long between the fourth and fifth frames from the forward bulkhead. Two planks had already been secured from the outside over those rents, which had almost stopped the leak. They advised that, in addition to those planks, the whole of the damaged part be properly boxed in with 4″ plank securely bolted to the angle iron of the floors, caulked and made water tight, and the internal space filled in with solid cement. One propeller blade was broken 2′ and 6″ off another blade, but as there were four blades on the propeller, they considered that the steamer might safely proceed with it, as far as her destination. The Surveyors were of opinion that when the repairs had been efficiently executed, the vessel would be in a seaworthy state to resume her voyage; they were unable to estimate the cost of repairs; the ballast tank having been full of water, all the cargo and dunnage mats in it must have been damaged. The steamer proceeded from Colombo on the 1st September after having the sound portion of the cargo re-shipped and the hull temporarily repaired. Of the cargo landed from the vessel, 5,610 bags of

ground-nuts were much damaged and were eventually sold by auction for ₹4,400. Value of damage to the *Graville,* ₹3,500; cargo, ₹6,000. No loss of life. (The master attributed the casualty to the danger not being indicated on the charts. It was not known whether the alleged rock had since been searched for, or the locality re-surveyed.)

241. The British iron screw steamer IRENE MORRIS [of Liverpool, 929 tons register, official number 81281], from Liverpool to Calcutta, with a cargo of salt. On the 12th August the steamer, under charge of a pilot, proceeded up the Hooghly river and anchored at Atchipur for the night. At 8-15 A.M., on the 13th, the pilot weighed and proceeded up the river, but at 11-25 A.M., when the steamer got above Melancholy point, it being dead low-water, she was caught in an eddy-tide, and refused to answer her helm, when she grounded on the sands off Melancholy point. The pilot thereupon endeavoured to haul her out with the aid of a stream anchor, but it proved of no avail. The pilot stated that the reason why he did not drop the anchor was because he feared lest it might go through the steamer's bottom; at high-water the following day, attempts having been made again she floated off, and the pilot safely proceeded with the vessel to Garden reach. The *Irene Morris* was aground for nearly 18 hours. Value of damage to the steamer, ₹6,000. No loss of cargo. No loss of life. (The occurrence was accidental, being due to the strength of the tides.)

242. The British Indian hodi YESHWANTI [of Utan, 14 tons register, official number 2237], from Utan to Kelva Máhim, with vegetables. On the 14th August the hodi, when off Vesava (Bombay coast), met with stormy weather and became unmanageable; the crew tried to put into that port for shelter, but at 7 A.M. of the same day she capsized, about 4 miles off, owing to the very heavy seas which were continually running over the hodi. She was subsequently righted and taken to the shore where she was repaired. Slight damage to the hodi; cargo all lost, value ₹350. The crew, 4 men, clung on to the mast and drifted ashore.

243. The British iron screw steamer INDUS [of Dundee, 1,616 tons register, official number 89085], from Calcutta to Melbourne, with a general cargo. On the morning of the 15th August the steamer proceeded down the Hooghly river from No. 8 Jetty in charge of a pilot. At 11-55 A.M. it was low-water; the vessel just below Melancholy point took a sheer towards the sands, when unfortunately the steam steering gear got disconnected, whereupon the pilot immediately reversed the engines to full speed astern but unsuccessfully, as the *Indus* slightly touched aft on the sands off Melancholy point. A quarter of an hour afterwards the steam steering gear having been put in working order again, the pilot at once proceeded with the vessel to sea. No damage to the steamer or cargo. No loss of life. (The casualty was accidental.)

244. The French iron screw steamer VILLE DE SAINT NAZAIRE [of Nantes, 928 tons register, official number not reported], from Pondicherry to Nantes, with a cargo of seeds and jaggery. About the 15th August the steamer, when in the Arabian sea, exact position not given, experienced heavy weather, and had every thing moveable swept off the deck; and having ran short of coals a portion of the cargo was consumed for fuel. On the 22nd she arrived at Aden, where after filling up her coals she resumed her voyage. Value of damage to the steamer and cargo not reported. No loss of life. (No official report of the casualty was received at this Department, nor was any information obtained from the Marine Authorities at Aden; the above details were compiled from private sources.)

245. The British iron screw steamer ALGITHA [of North Shields, 1,219 tons register, official number 76648], from Cardiff to Madras, with a cargo of railway materials. On the morning of the 16th August the steamer, when in the Indian

ocean in latitude 6° 21′ N., longitude 77° 26′ E., met with an accident to her machinery, the after connecting rod and other parts of the same having broken; cause not known. The weather at the time of the accident was fine, the wind was light from the S.W., with a heavy swell. On the following day she was towed into Colombo harbour by the steam-ship *Serendib*. The steamer, after having been repaired, proceeded on her voyage. Value of damage to the *Algitha*, ₹5,000. No damage to cargo. No loss of life.

246. The French wooden barque FELIX ESTIVANT [of Havre, 920 tons register, official number 2135], from Calcutta to Réunion, with a cargo of rice and hogslard. On the morning of the 17th August the barque was lying at single anchor off No. 2 Kidderpur moorings, Garden reach, Hooghly river; and was boarded by a pilot ready to proceed to sea, when, on the tug *Alexandra* passing hawsers, it was found that the anchor owing to the very strong tides was buried, and all efforts to break it out proved useless. The pilot afterwards, upon lighting-to chain to await the arrival of the Port Commissioners' Heave-up boat, discovered that the hawsepipe was cut through, thereby obliging the pilot to slip the anchor with 36 fathoms of chain; he immediately returned with the vessel to the buoys and anchored her safely. Value of damage to the barque, ₹730. No damage to the cargo. The anchor and chain lost by the *Felix Estivant* were subsequently recovered and cost ₹630. No loss of life.

247. The French iron screw steamer YOROUBA [of Marseilles, 2,000 tons register, official number 1612], from Cocanada to Marseilles, with a cargo of grain and rice. On the 17th August, when in latitude 7° 46′ N., longitude 64° 48′ E. (Indian ocean), the steamer met with an accident to her boiler. She put into Aden harbour for repairs. Value of damage to steamer, machinery, and cargo not reported. No loss of life. (The cause of the casualty was not reported.)

248. The British iron screw steamer NAVARINO [of Glasgow, 2,189 tons register, official number 68694], from Calcutta to London, with a general cargo. At 7 A.M. on the 21st August, the steamer in charge of a pilot turned from Garden reach, and safely rounded Melancholy point, and proceeded down the Hooghly river. At that time the ship *Garston* was proceeding up the river in tow of the steam-tug *Retriever* a little above the crossing mark, and the ship *County of Caithness* in tow of the tug-steamer *Court Hey* was going down close ahead of the *Navarino*. The ship *County of Caithness* and tug *Court Hey* were sheering about considerably, owing to the strong eddy-tide which prevailed there. At 7-30 A.M. the red Nun buoy off Melancholy point was about two points on the starboard bow, when the *Navarino* began sheering to starboard, thereupon the pilot instantly put the helm hard over to starboard, but the steamer did not answer it in time, and the consequence was that the *Navarino* came into collision with the Nun buoy, which grazed along the starboard side. The pilot then stopped the engines, and finding that the buoy was clear, he proceeded full speed, shifting the helm from starboard to hard over to port; but after going a short distance, on account of the strong eddy-tide, the *Navarino* refused to obey her helm as promptly as was desired, so the pilot consequently had to stop and go full speed astern, when she eventually straightened up along the bank and nearly grounded at Jar Maker's mark. The master informed the pilot that he believed that a piece of chain had fouled the *Navarino's* propeller, but it did not seem to impede the progress of the working of the same; the pilot then proceeded to Kalpi, where he anchored the steamer for the night. The pilot of the *Navarino* stated that it was his original intention to have started from Garden reach at 6 o'clock that morning, which would have been a more favourable time for the vessel rounding the Melancholy sands; but upon steaming up to the Botanical gardens for the purpose of turning above, he observed the Peninsular and Oriental Steam Navigation

Company's steamer *Sutlej* lying at anchor with a large scope of chain out, and making no effort to get out of the *Navarino's* way. There were also the ships *County of Caithness* and *Benavon* below the *Navarino* being taken in tow, and the pilot of the latter vessel therefore was compelled to wait for the first of the flood-tide before she attempted to go round. The pilot of the steamer *Sutlej* stated that the *Navarino* got underweigh so early as 5-30 A.M., and that he had no intention to start before half-past 6 o'clock. But to oblige the pilot of the *Navarino* he attempted to get the *Sutlej* underweigh at 6 A.M., and with the utmost power of the steam windlass, the helm hard-a-port, and with the aid of the engines, but unsuccessfully, as he could not get his anchor up, not even a link. After nearly an hour and a quarter the anchor of the *Sutlej* was eventually weighed, but the *Navarino* was at that time off Rajganj. Had the *Sutlej* started earlier she would have been too soon for crossing Mayapur; as it was, she had only 6″ of water to spare in one track. The *Sutlej,* moreover, did not proceed to the gardens to complete her loading, but as she arrived in the reach last, and all the berths below being occupied, there was no other alternative but to anchor her off the King of Oudh's palace. Where the *Sutlej* was moored there was nothing to obstruct the *Navarino* turning, as that vessel could have turned as well either first or last where she did, namely, the lower part of the reach. After the collision, it was found that the *Navarino* had carried the buoy away from its moorings; it was subsequently recovered with little or no damage. The pilot positively stated that the buoy had drifted into the channel, as at the time when the accident happened the leadsman reported bottom at a quarter less 7 fathoms; whereas he was led to believe that the buoy was laid in 18′ of water. No damage to the steamer or cargo. No loss of life. (The collision was unavoidable.)

249. The British iron screw steamer NEPTHIS [of Liverpool, 1,297 tons register, official number 76534], from Basra to Malta, with a cargo of grain. On the 21st August, the steamer was proceeding down the Basra river (Persian Gulf), under charge of a pilot; at 8-30 A.M., owing to insufficiency of water on the bar, the steamer grounded, but got off immediately and proceeded on her voyage. No damage to the steamer. No loss of cargo. No loss of life.

250. The British iron screw steamer SOUTHWOLD [of London, 1,204 tons register, official number 89533], from Basra to Gibraltar, with a cargo of barley. On the 23rd August, the steamer in charge of a pilot, was proceeding down the Basra river; at 9 A.M., when at the entrance to the river (Persian Gulf), she was steered out of the channel, where she grounded, but was got off shortly afterwards. No damage to the steamer or cargo. No loss of life.

251. The French wooden barque FELIX ESTIVANT [of Havre, 920 tons register, official number 2135], from Calcutta to Réunion, with a cargo of rice and hogslard. The barque when at Garden reach, Hooghly river, met with an accident on the 17th August, caused by strong tides, breaking her hawsepipe and losing an anchor and 36 fathoms of chain, which necessitated her return to moorings for the purpose of survey and repairs. On the evening of the 22nd August, the barque, under charge of a pilot, was lying at single anchor—the starboard one—near No 1 Matia-brúj moorings, preparatory to proceeding to sea in tow the next morning. At 5 A.M. on the 23rd, whilst the crew started to heave short the anchor, it was reported that the cutwater had carried away for a length of about 4′. There was a man at the wheel all the night, but it was impossible to steer her owing to her great depth for such a small vessel, consequently she sheered in all directions on the river, when she parted her chain at 15 fathoms, losing the anchor. She immediately returned to the buoys and was safely anchored. Value of damage to the barque, ₹2,200. No loss of cargo. The anchor and chain lost by the *Felix Estivant* were not recovered, but were replaced at Calcutta at a cost of ₹1,250; the value of the lost articles

was R950. The barque after having been finally examined and repaired proceeded to sea on the 2nd September, in tow of the steam-tug *Columbus*. No loss of life. (The casualty was unavoidable.)

252. The British iron ship THOMASINA MACLELLAN [of Glasgow, 1,788 tons register, official number 68058], from Bassein to The Channel, with a cargo of 1,100 tons of rice. The ship left Sydney (New South Wales) in May for Bassein *viâ* Madras, with a cargo of steam coals consigned to the former port. All went well with the vessel until off Cape Leeuwin at the S.W. end of Australia, when she met with bad weather; but there was no accident on the voyage except the carrying away of the wheel, and since then she had a good passage. She only called at Madras for orders, but did not discharge any cargo, and arrived at Diamond island on the 6th August. The vessel then proceeded up the Bassein river in charge of a pilot as far as Enterprise island with a fair wind, thence on the 9th she was towed up and safely moored that same afternoon off the Irrawaddi Flotilla Company's godowns, there being no accident whatever between that time and mooring off the wharf. The pilot stated that the vessel was lying in the harbour in 6½ fathoms of water with two anchors down, with 60 fathoms of chain on the bower anchor and 45 fathoms on the stream anchor; besides this she had 100 fathoms steel hawser made fast from the port quarter pipe to a tree on shore and 80 fathoms of a 11″ hawser was run out from the port forward pipe and made fast to another tree on shore, with breast lines to posts put down by the Irrawaddi Flotilla Company; she then drew 15′ 6″ aft and 15′ 3″ forward. The pilot stated that when the anchor was dropped a cast of 6½ fathoms was taken inside of her; he took no bearings, but as far as he could remember she was about 60′ from the wharf, and neither the master or any of his officers ever took any sounding after she was brought up to her berth and anchored. The *Thomasina MacLellan* rode safely at anchor from the 9th to the 24th, during which time she discharged the coals and took in about 300 tons of rice in bags. The vessel after having been loaded down to 18′ aft, was towed across under charge of a pilot on the 24th to Messrs. Strang, Steel and Co.'s rice godowns, with the object of facilitating the loading of the cargo. On the 26th she was lying off that wharf with two anchors down, with 70 fathoms of chain on one anchor and 45 fathoms on the other, with hawsers and ropes the same as alongside the Irrawaddi Flotilla Company's wharf. During the time the ship was moored off the Irrawaddi Flotilla Company's wharf the gangway booms shifted away from the wharf in a strong N.W. squall, but they were put up again after a few hours. The first officer alleged that the vessel moved farther away from the wharf during the whole of the squall, but after that she went 10′ nearer; the wells were sounded as usual every day at 6 A.M., but found no water. The pilot swore that when he moved the ship to Messrs. Strang, Steel and Company's wharf on the 24th, he found her in exactly the same position as when he left her on the 9th. In 1883 he moored the loaded ship *Firth of Clyde* drawing 21′ 6″, at less than half the distance the *Thomasina MacLellan* was, without any accident to her; other heavy draught vessels have been in the same moorings, but not put there by him. He went down the hold on the 24th; there was no appearance of her making water then, and from the forecastle she seemed much on an incline, but not more than he had seen in other ships. All hands were at their stations, the first officer was on the forecastle head letting go the anchor; the lead was hove and a cast of 6½ fathoms was obtained inside the ship and 7 fathoms up and down the stern; the port bow anchor was then lowered with the windlass, and it went down all right. The pilot stated that her draught was then 18′ aft and about 8′ to 10′ forward; and all on board swore that the vessel did not touch the ground when underweigh to Messrs. Strang, Steel and Company's rice godowns. On the 26th the vessel had been loaded with only a part of her cargo,

viz., 1,100 tons, when, between 2 and 3 o'clock that afternoon, the second officer suddenly found $5\frac{1}{2}''$ water down in the main hatch. The second officer then ran up and called the master, requesting him to come below at once as he saw that the vessel was leaking badly in the main hold; the master followed him immediately, and discovered that the water was over the ceiling, but without finding the locality of the leakage; he stopped the further loading of the vessel, the pumps were at once set on, and reported the circumstances to Lloyds' Agents. On the 28th the Surveyor to the port, accompanied by a Surveyor (a licensed pilot) proceeded on board the ship *Thomasina MacLellan* lying afloat at Messrs. Strang, Steel and Company's wharf, in order to survey her and ascertain the cause and locality of the leakage, it having been reported that the vessel was making water whilst loading her cargo. After making a careful examination it was found that the ship was drawing 13′ forward and 18′ 6″ aft, and had on board 11,562 bags of rice; the depth of water under the keel being 7 fathoms aft and $6\frac{1}{2}$ fathoms forward. She was being pumped out by the main pumps attached by steam to the donkey engine, and found 2′ 6″ of water in the pump wells and 1′ 9″ in the after hold by the mizenmast over the dunnage and keelson, but discovered no water in the fore hold by the forward hatch. They carefully examined the vessel inside and out, but detected no trace of leakage, and after pumping for an hour they sounded and the water decreased 3″ during that time; they then stopped the pumps and observed that the water had gained $1\frac{3}{4}''$ in one hour, but after another hour only $\frac{3}{4}''$. They were of opinion that the ship was not making water through any defect of the hull, but they were unable to certify positively till a part of the cargo in the after part of the vessel had been discharged and the water pumped out. They therefore advised that sufficient cargo in the after part from the mainmast be discharged and stored alongside the wharf for quick despatch, and the work of pumping be continued day and night till the locality of the leak, if any, was ascertained; extra pumps to be procured should it prove necessary, as the water might be gaining on the vessel. The lower tiers of bags in the after part of the hold were damaged by water, and should, therefore be discharged. On the 2nd September the Surveyors visited the ship, and found her at her moorings in the stream drawing 12′ 1″ forward and 11′ 6″ aft; all the damaged rice, 839 bags, had been discharged, and 7,135 sound bags landed; the space from right aft to two beams abaft the after hatch in the hold of the vessel had been cleared of cargo and dunnage; also a space from the fore part of the fore hatchway to two beams forward to the main hatchway; there were 3″ of water aft by the mizenmast in the hold, 10″ in the pump wells amidships, and 18″ in the fore hold by the fore hatchway. The bottom was carefully examined fore and aft where the cargo had been cleared away, the limber and lining boards being taken up wherever practicable; also the sides and the sternpost of the vessel, but failed to detect the leakage. The Surveyors therefore sealed up the pumps after seeing her pumped out 5,″ she having been trimmed on an even keel 11′ 7″ forward, 11′·9″ aft. At 10 P.M., when they unsealed the pumps, they observed that she had only made $7\frac{1}{4}''$ of water in 6 hours; they reported that the vessel was leaking somewhere in the bottom or the bilge plates under water below the 12′ mark, and recommended that the remainder of the cargo be cleared away from the space amidships where they were unable to examine the bottom, and that a further survey should be held. On the 4th they again visited the vessel when the cargo stowed amidships had all been cleared away; they reported that they could find no trace of the water coming in, or of the cement laid on over the bottom plates being broken or cracked; they observed in one of the compartments between the frames in the port bilge abreast the centre of the main hatch what appeared to be an indentation of one of the plates, but on removing a portion of the

cement found it was a ribbon plate with no signs of leakage; she was marking the same quantity of water, and the pumps had been kept constantly going day and night by the crew and extra labourers engaged from shore. They were of opinion that, in order to ascertain the extent and whereabouts of the leak, the vessel should proceed either to Rangoon or Calcutta to be docked and repaired, but the master was informed that the dock accommodation at the former port was inadequate, so he decided to go to Calcutta. The leak was not a bad one, and might have been occasioned by the vessel having rested on some hard substance, thereby springing a plate or loosening some rivets whilst lying alongside the coal wharf discharging her cargo. From an examination of the locality where the vessel grounded it was discovered that there was a quantity of stone in 20′ of water some 12′ or 15′ inside where she was stated to have been moored. Under the above circumstances the Surveyors did not consider the ship fit to re-load her cargo and resume her intended voyage, and advised that the whole of the cargo then remaining on board be discharged and she proceed in ballast to the safest and least expensive port to be docked at the option of the owners; also that an extra pump be placed on board and an extra supply of men to keep her free, should the leak increase on the passage. The vessel was again examined on the 29th by the Surveyor to the port, assisted by the Engineer Surveyor, and after making a careful survey, it was reported that the ship was loaded down by the stern with about 600 tons of stone ballast and 90 tons of rice for the purpose of bringing the damaged plate above water forward; in order to effect that, some of the stone ballast had been stowed right aft on the poop deck. They thereupon discovered that a hole, 2″ long (perpendicular), had been made in one of the plates 4″ above the keel and 2″ abaft the stem on the port bow; the hole was $\frac{1}{2}$″ open at the top, but rugged and tapering to a crack at the bottom, the thickness of the plate being $\frac{1}{2}$″. From the locality and the shape of the hole the Surveyors were of opinion, without doubt, that the damage had been occasioned by the pointed fluke of the port anchor striking the bow plate when she was first moored alongside Messrs. Strang, Steel & Company's wharf after she had discharged her coal at the Irrawaddi Flotilla Company's godown. They recommended that the damaged plate be repaired by the broken part being cut out and replaced, and a $\frac{7}{16}$″ round patch of 10″ in diameter inside and out be bolted with insertion between over the damaged plate, with nuts inside and counter sunk heads outside; the upper decks to be thoroughly caulked fore and aft, as the seams badly required it; in the collision bulkhead one rivet or bolt, to be replaced; and the gearing wheel of the windlass stripped off, to be put in good working order. On the 2nd October the *Thomasina MacLellan* was finally surveyed whilst lying in the stream. The Surveyors reported, after an examination, that a sound patch had been made as directed to fit closely over the damaged place in the bow plate, and that it was properly bolted on with $3\frac{1}{2}$″ screw bolts on the inside; it was the best job that could have been done at Bassein as a temporary measure; the repair was a good one, rendering the ship perfectly seaworthy, and that she was then in a fit state to re-commence her loading and proceed on her intended voyage. They recommended that the ship should be docked on the first convenient opportunity for the purpose of putting the damaged plate in its original condition; the patch on the inside should be boxed in to prevent injury to the projecting screw bolts. The vessel's windlass, which had been repaired and put into serviceable order, should be thoroughly overhauled and repaired on arrival in The United Kingdom. The pilot said that he did not know of any danger alongside Messrs. Strang, Steel and Company's wharf which the vessel could touch; it was fine weather then, and after remaining for a week or ten days she was moored in the stream. The master stated that a diver arrived from Rangoon and surveyed the vessel on the 18th September,

when the leak was observed at the 4′ mark above the keel and 1 foot from the stem. He could only surmise the cause of the disaster to have occurred owing to the vessel resting on some heaps of stones with only 24′ above them at the top of high-water before leaving the Irrawaddi Flotilla Company's wharf, there being no shock felt by any one on board of the vessel striking anything. He farther added that on the 5th September, accompanied by his first officer he proceeded to examine the ground on or near the place where the ship was anchored in 6½ fathoms previous to the accident. They reported that on sounding on the morning's flood-tide they found several heaps of stones lying scattered 40′ off the wharf with only about 24′ of water over them. They considered that these stones were dangerous to large vessels anchored in the vicinity, and likely to cause such damage to shipping as had been caused to the *Thomasina MacLellan*. The ship sailed from Bassein on 16th October for Bremen, having re-shipped the sound portion of her cargo. Value of damage to the ship *Thomasina MacLellan*, ₹5,000; cargo, ₹6,000. The 991 bags damaged cargo were sold by public auction on the 17th September and realized ₹752. No loss of life.

[A Special Court of Inquiry was held in the Court of the Deputy Commissioner, Bassein, by the District Magistrate on the 17th, 21st, and 28th September and 5th October, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances attending the accident to the above ship whereby she sprung a leak whilst loading her cargo of rice in the harbour of Bassein on the 24th August. The Court recorded that, having assembled pursuant to citation, the papers and correspondence relating to the case were read and filed. The Court on the 17th and 21st September took the evidence of the master, the first and second officers of the vessel, and the pilot, and adjourned for the trial until the 28th, in order to give the members an opportunity of inspecting the leak, the master having arranged to tilt the ship so as to expose her bottom. On re-assembling on that day the Court observed that the vessel had not then been sufficiently tilted, the investigation was accordingly adjourned *sine die* till the members of the Court had had a reasonable time for examining the injury done to the ship. On the Court assembling on the 5th October farther evidence was gone into, after which the President read their finding. The Court, after a careful consideration of the evidence brought in this case, were of opinion that the damage done to the ship *Thomasina MacLellan* was caused by the anchor coming in contact with the hull of the vessel when it was let go at Messrs. Strang, Steel and Company's wharf in the Bassein river. The Court observed that it might have been the case whether the chain was jammed or not on account of the position of the ship in the water, namely, down by the stern and with a list to starboard. The Court was quite satisfied that the damage was not caused by grounding whilst the vessel was moored at the Irrawaddi Flotilla Company's wharf, and from the evidence adduced considered that the moorings at that wharf were perfectly safe. The Court considered that the master would have acted more prudently had he moored the ship *Thomasina MacLellan* on a more even keel, but did not consider it necessary to take farther action in the matter. The master was acquitted.]

253. The British Indian pattimar FUTTAY SHAH ALLUM [of Bombay, 40 tons register, official number 2849], was employed in carrying rice from a steamer in the Bombay harbour to the shore. At 3-30 P.M., on the 26th August, the pattimar proceeded into Mudy bandar to discharge, and as the tide ebbed her starboard bilge touched a lump of mud and stones, and as it continued to fall she listed over until she was right on her gunwale, and the bags which had not been discharged fell out of the boat into the water. The crew could not push her off as the pattimar's fore foot was embedded in the mud by the time the bilge took the heap of stones, thereupon the crew got lines on shore to keep her upright,

but they parted when the strain came on them. She was afterwards recovered with slight damage; cargo, worth R1,750, was lost. No loss of life. (The casualty was caused by the negligence of the tindal.)

254. The British Indian iron screw steamer NEDERLAND-EN-ORANJE [of Bombay, 1,523 tons register, official number 1 of 1885], from Bombay to Jiddah, with a general cargo, and 900 Native passengers (pilgrims) on board. On the 22nd August at 3-30 P.M., the steamer weighed and proceeded down Bombay harbour in charge of a pilot, and at 8 P.M. she discharged her pilot at the Outer light-ship and resumed her course towards Aden. Two hours afterwards she experienced strong squalls from the S.W. with considerable sea, which interfered with the vessel's progress; at midnight the weather was same with heavy rain squalls. On the 23rd at 4 A.M. dirty squally weather with heavy rain; at 8 A.M. the weather moderated but a heavy head sea continued. About that time the carpenter reported that the steamer was making a little water in the after hold, and that the fresh water in the ballast tank was getting brackish. At noon the carpenter sounded the after well and discovered 3′ 10″ of water, or 10″ above the flooring of the ballast tank; the chief engineer also stated that for some reason, not then apparent, he was unable to free her and to condense water, but he was using every effort to do so; the weather then moderated and the vessel made better progress. At 4 P.M. there was a moderately strong breeze with fine cloudy weather; at 8 P.M. the weather still the same, and found the water gaining a little in the after well, in which the carpenter reported 4′; whereupon the master ordered the engine-room sluices to be opened from the after hold, and efforts made by the engineers and crew to clear the water in the best possible way they could owing to there being no means available for doing so from the deck. The crew and passengers were panic-stricken, and great fears were entertained in regard to the damage that the lower tier of bags in the hold might sustain. The chief engineer then reported to the master that the pulsometer pump was kept going but the water did not decrease, and he could not say how the water got into the after hold unless caused by leakage from the tunnel. At midnight there was a fresh S.W. breeze with passing clouds and slight squalls; the after hold was sounded and found 4′ of water. On the morning of the 24th the wind same, weather fine but cloudy, and the sea gradually going down; at 8 A.M., on examination of the well, it was discovered that the water was decreasing. At that same time water was served out to the pilgrims (900 in number) at the rate of a quart per head, being a part of the contents of the ballast tank which was used for cooking purposes. At noon the water had decreased in the after hold, there being 3′ 4″; the condenser was then set working into the port fresh water tank which contained 7″ at time of starting. In the afternoon the weather still moderating, the water tank showed that the condenser was making 2″ of water per hour. On the 25th fresh S.W. breeze with fine but cloudy weather, the sea moderating; the passengers were served at the rate of one half-gallon per head, being part of the water in the ballast tank, and which was used for cooking purposes; at noon discovered that they had condensed in 24 hours 3′ 3″ or 700 gallons of water in the ballast tank, but it was entirely unfit for use; the pumps were carefully attended to. On the 26th the weather same and the steamer was found to be making more water in the after hold, and on the carpenter reporting 4′ 4″, the master ordered the crew to clear the cargo from that hold; water was served to the passengers at the rate of half gallon per head. At 4 P.M. the sea was very irregular and confused, and the water gaining in the after hold the force pump was set on; the water by that time had reached a foot above the flooring of the ballast tank, and two tiers of bags of rice were badly damaged. At 8 P.M. the water had considerably gained in the after hold, the crew then managed to cut a hole in the ballast tank flooring through which they introduced the end of the

hose into the well for the purpose of reducing the water in the after hold. At 4 P.M. on the 27th the crew by persistent working of the force pump succeeded in reducing the leak to 3′; the weather overcast but still the same. At 8 A.M. the master set the fore and aft sails in consequence of the excessive rolling and pitching of the vessel. At 4 P.M. of that day, whilst in latitude 16° N., longitude 61° 08′ E. (Arabian sea), the chief engineer reported that the condenser had broken down and that there was no chance possibly of repairing it; whereupon the master, after consultation with his officers and the chief engineer as to the best course to adopt under the circumstances, there being water on board sufficient for 5 days only at a quart per head, and there still remained 7 days voyage to be accomplished, and in view of the fact that all hands had been on short allowance on leaving Bombay save one day, it was finally determined to put back to Bombay. At 9 P.M. the master set his course for Bombay; the weather was moderate, but the steamer rolled considerably at times. On the 28th there was great discontent amongst the passengers regarding the insufficient distribution of water, and the master immediately on ascertaining that there was $5\frac{1}{4}'$ of water in the starboard tank and $1\frac{1}{4}'$ in the port tank, ordered the topgallant yards with all the sails to be set; an hour afterwards a passenger died through exhaustion and thirst, but the remainder of the passengers were in good health. On the 31st the steamer safely arrived at the harbour of Bombay, where she was anchored by the pilot, and on that same day the Shipwright Surveyor to the port, accompanied by the Engineer Surveyor, proceeded on board the steamer *Nederland-en-Oranje*, lying afloat in the harbour of Bombay, in order to make a survey on that vessel, she having, when on her passage to Jiddah with pilgrims, put back owing to the fresh water condenser having broken down, and not having sufficient fresh water on board to continue her voyage, and the vessel leaking badly. After a careful examination of the vessel and a perusal of the deck and engine-room log-books, the reasons there given were correctly stated; they were of opinion that the fresh water condenser could have been repaired on board. It was also reported by the master that water had leaked into the after hold and damaged a large portion of the cargo, and the vessel's pumps were unable to free her of the water. The Surveyors ordered the cargo in the after hold to be discharged at once, in order to enable them to ascertain the cause and locality of the leak. They visited the steamer on the 3rd September, and after a minute examination of the tunnel and stern gland from inside as far as could be seen everything was found in good condition, and there was no sign of any leak; in the after hold, which was not quite clear of the cargo or the whole of the lining taken up for a thorough examination, there were 4″ of water in the bilges which had gathered during the 12 hours. This water on being tasted by the Surveyors and the first officer was found to be quite fresh and clear; they traced the run of the water, as far as the lining was taken up, in a direction towards the fresh water tanks; these fresh water tanks were filled up to 6′ on the 31st August, and on soundings being taken on the 5th September found only 14″, thereby clearly indicating that the fresh water tanks were leaking. They therefore advised that the whole of the cargo be discharged, and the lining lifted for the purpose of surveying the after hold bilges and the fresh water tanks. The Surveyors again visited the vessel on the 11th of that same month for the purpose of surveying her finally. After examination of the hull aft, it was reported that no trace of the reported leak could be detected. One of the bilge pipes in the engine-room was disconnected, when the order was given to try the engines under steam; on the engineers opening up the sea cocks and turning the engines the sea water began to flow into the engine-room through the disconnected bilge pipe, which clearly indicated that there was some cock left open or worked wrong; the chief engineer, who was ignorant as to its whereabouts, subsequently

traced the open cock in the stokehole. The chief engineer accounted for the cock having been opened to the negligence of some of the firemen, as he had previously shut it himself. The Surveyors therefore were of opinion that the cock had been left open on her last voyage, thus accounting for the rise of water in the after hold. They tried her in the harbour under full steam as far as the Outer light-ship and back, but could detect no leak. The Surveyors were of opinion that the steamer *Nederland-en-Oranje* was strong, staunch, and seaworthy, and fit to carry a dry and perishable cargo. On the afternoon of the 12th September, the vessel resumed her voyage to Jiddah. Value of damage to the steamer, ₹4,500; cargo, ₹3,000. One life lost.

255. The British iron paddle steamer ALEXANDRA [of Calcutta, 363 tons register, official number 48740], was employed as a tug steamer in the Hooghly river. On the 29th August the tug *Alexandra* was lying at No. 6 swinging buoy abreast the Esplanade moorings, in the Hooghly river. On that night there was an unusually strong rush of freshets, and at 10 P.M., it being the last quarter of the ebb-tide, the tug *Court Hey* broke adrift and fell athwart the *Alexandra's* mooring buoy, and afterwards came into collision with that steamer, striking her on the port bow, thereby carrying away the *Alexandra's* figure-head, cathead, and the anchor which was hanging at the bow, the chain being unshackled and fast to the buoy, and finally parted the mooring chain the *Alexandra* was riding by. The master stated that after the collision, when the *Alexandra* was clear, he dropped the anchor, but in slacking out chain it parted somewhere, between the steam tugs *Sestos* and *Columbus*, when the steamer drifted down the river with no anchors to her bows. When abreast the India General Steam Navigation Company's dockyard, Kidderpur, the master and officers of the Government steamer *Undaunted* were all up and awake, and without loss of time rendered great service in dropping her down clear of all shipping to Panchpara, Garden reach; after the tide slacked and with the spare anchor (all the crew not having turned up) the *Alexandra* was brought up. At 1 A.M. on the 30th, having been informed of his vessel's whereabouts by the master of the Indian Marine steamer *Tigris* who had left her all right off the Port Boundary pillar, the master proceeded to his vessel, and he got down there, found the whole of the crew aboard and steam up; by 4 A.M. he weighed and brought the *Alexandra* up to Shibpur on the West bank of the river without farther mishap. Value of damage to the tug *Alexandra,* about ₹1,081. The anchor and chain lost by the steamer were not recovered, but they were replaced at Calcutta at a cost of ₹611. The value of the lost articles were ₹1,692. No loss of life.

(For an account of the Court Hey, see Wrecks No. 54.)

256. The British iron paddle steamer HUNSDON [of Calcutta, 274 tons register, official number 49328], was employed as a tug steamer in the Hooghly river. On the 29th August the *Hunsdon* was lying at No. 1 swinging buoy abreast Prinseps' ghât, Hooghly river. On that night there was an unusually strong rush of freshets at 9-50 P.M., it being the last quarter of the ebb-tide, the tug *Court Hey* broke adrift and fell athwart the tug *Alexandra's* mooring buoy, and afterwards came into collision with that steamer, striking her on the port bow. At midnight the tug *Court Hey* ranged alongside the *Hunsdon* in drifting past, and slightly fouled the latter vessel, paddle-box to paddle-box; the starboard jolly boat which was damaged was subsequently repaired on board without any extra expense. No loss of life.

(For an account of the Court Hey, see Wrecks No. 54.)

257. The British iron screw steamer CHILKA [of Glasgow, 1,450 tons register, official number 80424], from Rangoon to Maulmain and The Straits, with a general cargo. The master stated that the steamer arrived off the Pilots' station, entrance to the Maulmain or Salween river (Burma coast), at 2-40 A.M

on the 29th August; the weather being then fine and clear with smooth sea; blue lights were burned at intervals, but did not receive any reply from the shore till 55 minutes past 3 o'clock that morning; and at 5 A.M. a pilot boarded and took over charge. Half an hour afterwards the vessel proceeded up the river, and when crossing from Bheelúgyún channel to the Pool channel, a rain squall set in with thick weather at 6-40 A.M. But the pilot observing that it was likely to come on heavy, reduced the engines to half speed, and directed the seacunnie to steer for the upper red Pool buoy, namely, N.E. ¼ N. The engines were slowed down, and the pilot could distinguish the buoys on either side of the *Chilka,* the leadsman giving 7 fathoms, the pilot went to the compass to see whether the seacunnie was steering according to the course given, whereupon perceiving that he had brought the vessel's head to the eastward, immediately ordered the helm to be put to starboard and proceeded back to the compass; but finding no alteration in the steamer's course, the pilot was going to ascertain whether the helm was actually put to starboard, when the *Chilka* grounded on the edge of the Bheelúgyún sands at 6-55 A.M. The engines instantly went full speed astern, but the vessel remained fast. The pilot stated that the eastern shore and the Pool buoy were visible but not distinctly, and on sounding found 11½′ forward and 15′ aft on the starboard side. At 2 P.M. she floated off on the water rising and safely arrived off town (Maulmain) and moored off Cohen's wharf. The vessel remained aground for 7 hours. A survey was held on the 31st and it was reported that she had sustained no injury. The pilot said that the wheel was on the upper deck, whilst the bridge was above it, and all orders regarding the steerage of the vessel were passed through a tube, and a person on the bridge was unable to see whether the orders were carried out or not. After efforts to get the vessel off proving unsuccessful, the pilot went off the bridge and found the helm to be *a-port,* and *not* to starboard as was directed whereupon the seacunnie was questioned as to the cause of this; he said that he heard the order was to port and not to starboard the helm. On the morning of the 31st the Surveyor to the port, assisted by a Marine Surveyor, proceeded on board the steamer *Chilka,* lying afloat in the Salween river, in order to make a survey on the bottom of that vessel, she having, when proceeding up the Maulmain river, grounded on the Bheelúgyún sands. After a careful examination of the bottom, the steamer being in light ballast trim, they reported that there was no sign of her having sustained any injury through the accident, and that she was in every respect seaworthy as noted on the face of the Surveyor's certificate and declaration under Act V. (B.C.) of 1862, issued at the port of Chittagong. Value of damage to the steamer *Chilka,* ₹100. No loss of cargo. No loss of life.

[A Court of Inquiry was held in the office of the Port Officer, Maulmain, on the 10th September, by the Assistant Commissioner, Amherst, under Rule XXVI of the Maulmain Pilot rules, for the purpose of investigating the circumstances attending the casualty to the steam-ship *Chilka.* The Court recorded that, having assembled pursuant to citation, the defendant (a licensed pilot of the port of Maulmain) was called and charged with carelessness for having allowed the vessel to take the ground. The papers and correspondence embodying the statement of the case were laid before the Court by the Government Prosecutor, and a sketch of the spot showing where the accident occurred was, after having been inspected by the President and members, filed; after which they proceeded to hear evidence. The Court recorded that the master in his evidence stated that when the casualty happened he distinctly saw the Black Cage buoy, but the land ahead was not distinctly visible, neither were the red buoys on the port side. Just before the steamer struck the ground the pilot was on the upper bridge, and gave the order to starboard the helm, and at that time standing alongside of the man at the wheel, he saw the wheel put to starboard. He said that when the weather was so thick, and one buoy was distinctly visible, the pilot

who was perfectly sober, was justified in proceeding as the weather was clearing. The master swore that from where the pilot was standing on the bridge he could not have seen whether his order "to starboard" was obeyed or not. The first officer positively stated that just before the accident happened it was thick with rain, and the land ahead on the starboard bow was seen indistinctly, the pilot gave the order first "half speed" and immediately afterwards "slow," and within a few minutes he directed the helm to be starboarded; and whilst that order was being carried out, the steamer grounded. The order was obeyed because he heard the steam steering gear, and the steersman himself call out "to starboard." There was an ebb-tide running at the rate of 4 knots per hour. He stated that "I think the pilot was justified in having gone slow, but probably the vessel was farther ahead than the pilot thought, which may account for her grounding." The seacunnie who was at the wheel on the morning of the 29th August, swore that a minute before the vessel went aground the pilot sang out "port," and a minute afterwards "steady," and then the accident occurred; subsequently the pilot went down to him and ordered hard-a-port, and he put it hard-a-port; the pilot never gave the order to starboard, but before the casualty the master did give the order to starboard, and just as the helm was put a little to starboard the pilot sang out "port;" that order was partly carried out and the pilot sang out "steady," and when it was steadied she went aground. On the conclusion of the evidence the President then asked the defendant whether, having heard the evidence, he had anything to urge in his defence, who thereupon asked to be allowed to read a written statement, and on permission being given, it was read in the hearing of the Court and filed. The defendant was present in Court during the whole of the trial, and had full opportunity of cross-examining the witnesses called by the Government Prosecutor and of making a defence. He called no witnesses, but said that all he had to urge was that his order to starboard given to the helmsman was not carried out; had it been obeyed the *Chilka* would not have grounded. The Court then directed the parties to withdraw, after which the Government Prosecutor handed the defendant's defaulter sheet. The Court having duly considered all that had been brought forward, were of opinion that the defendant was guilty both of carelessness and neglect, the consequence of which carelessness and neglect caused the steam-ship *Chilka* to ground in the Maulmain river. The Court recommended that the pilot's license be suspended for three months and his draught reduced under 18' for a further term of three months.]

The Commissioner of the Tenasserim Division after perusal of the dafaulter sheet of the pilot, remarked that the sentence recommended was a light one, and in confirming the proceedings and report of the Court of Inquiry, directed that the pilot forfeit any pilotage fees which would otherwise be claimable by him on account of the steam-ship *Chilka.*

258. The British iron paddle steamer BENGAL [of Calcutta, 640 tons register, no official number], was employed in the passenger and goods traffic on Inland rivers between Calcutta and Assam. The *Bengal* with a flat in tow arrived at the Hooghly river on the 28th August from Assam, with a cargo of 10,000 maunds of tea, tea-seeds and jute, and it being very late that afternoon to go through the Hooghly bridge, the master anchored off the Bombay Burma Trading Company's premises, Shibpur, on the Howrah side. She was securely moored head and stern close into the western shore up to the time of the accident. On the night of the 29th, there was an unusually strong rush of freshets, and it being the last quarter of the ebb-tide the steamer *Court Hey* suddenly broke adrift, and in drifting down the river came into collision with the tug *Alexandra,* which vessel was lying at the next buoy astern of her. On being fouled the *Alexandra* parted her chain and also drifted down the port; the *Court Hey* thereupon rolled over the *Alexandra's* mooring buoy and sprung a leak,

thus, in this manner, she ranged alongside the steamer *Hunsdon* in drifting past, and slightly fouled the latter vessel, paddle-box to paddle-box; she then slipped the chain, and with the assistance of the fire-engine which had previously gone alongside, endeavoured to beach the vessel above Shalimar point on the Howrah side of the river, but the *Court Hey* unfortunately drifted down with the ebb-tide across the bows of the *Bengal* causing a slight collision. After a few minutes she canted round clear to the ebb-tide, the fire-engine broke adrift from the *Court Hey* and the steamer after drifting away farther down foundered in 4 fathoms of water. No damage to the *Bengal.* No loss of cargo. No loss of life.

(*For an account of the Court Hey, see Wrecks No. 54.*)

259. The British iron paddle steamer ALEXANDRA [of Calcutta, 363 tons register, no official number], was employed as a tug steamer in the Hooghly river. On the 31st August, the tug was towing the ship *Royal Alexandra* down the river. At 12 A. M., when midway between Hog river point and the bluff at Fisherman's point, for which latter part the tug was heading at the time of turning the ship, the chain took a sudden run round the windlass and would not bring up; eventually the steamer's chain parted at 45 fathoms, carrying with it the anchor. The master of the tug stated that he was inclined to believe that the anchor must have hooked, otherwise 10 fathoms before the windlass would never have run all the chain out and broken the stoppers; so that there was every probability that another anchor or two was buried in the same spot. The tug immediately afterwards proceeded to sea with the ship in tow. The anchor and chain were both new articles, and were only received on board the day previous to replace those lost off Prinseps' ghât after having been knocked away from the mooring buoy through a collision with the steam-tug *Court Hey.* The anchor and chain lost by the tug *Alexandra* were not recovered, but they were replaced at Calcutta at a cost of about ₹1,100. The value of the lost articles were ₹846. No damage to the tug *Alexandra.* No loss of life. (The casualty was accidental.)

260. The British iron ship SAINT MILDRED [of Glasgow, 1,363 tons register, official number 76795], from Calcutta to London, with a general cargo. On the 31st August, the ship, in charge of a pilot and in tow of the steam-tug *Challenge* was proceeding down the Hooghly river. At 7-15 A.M. on that same morning, when a little below Melancholy point, the *Saint Mildred* parted her port hawser, recovering with the starboard hawser. The pilot thereupon proceeded dead slow to enable the *Challenge* to haul in the slack of the hawser, but when nearly 100 yards below Pir Serang the tug took a sheer and got her head into the bank, and the pilot was obliged to starboard the helm to prevent the *Saint Mildred* following the steamer. He then dropped the starboard anchor, but before the ship could swing to it she tailed the bank at Kaffray reach, about a quarter of a mile below the Dingywallah's flat buoy, at 7-50 A. M. At the time of the accident there was 12′ showing at the Moyapur tidal semaphore. As the tide rose the *Saint Mildred* floated off, and after being taken in tow again, proceeded to sea. She was aground for 6 hours. No damage to the ship or cargo. No loss of life. (The casualty was unavoidable.)

SEPTEMBER.

261. The British iron ship MOUNTSTUART [of Glasgow, 1,220 tons register, official number 78621], from Calcutta to Melbourne, with a cargo of gunny bags. At 8-30 A.M. on the 3rd September, the ship in charge of a pilot, and in tow of the tug steamer *Alexandra,* whilst turning from the southern bank at Garden reach, Hooghly river, at half ebb-tide the pilot had to cast the tug off, to avoid a collision with the Inland steamer *Nirmala* which was crossing her bows, and

after doing so he dropped the *Mountstuart's* anchor abreast the India General Steam Navigation Company's Yard at Garden reach, but the chain parted with 35 fathoms, thereby losing the anchor. The pilot subsequently brought the ship up with the second anchor close to the northern bank, which she gently touched on the tide falling. The anchor and chain lost by the *Mountstuart* were not recovered, but they were replaced at Calcutta at a cost of ₹1,347. The value of the lost articles was about ₹725. No damage to the ship or cargo. No loss of life. (The casualty was accidental.)

262. The British iron screw steamer REBECCA [of London, 1,021 tons register, official number 81578], from Calcutta to Trapani and Genoa, with a general cargo. At 7-45 A.M. on the 4th September, the steamer in charge of an assistant harbour master dropped down the Hooghly river from No. 2 Calcutta moorings to Garden reach, preparatory to proceeding to sea. At 9-30 A.M., the pilot relieved the assistant harbour master, and at 1 P.M. commenced to weigh, it being the last quarter of the ebb-tide; the vessel was turning round at Garden reach, when 10 minutes afterwards she came into collision with the flat *Parwar,* which vessel had sometime previously anchored in mid-stream The engines were working full speed astern and the pilot intended passing between Garden house point and the flat *Parwar,* but the *Rebecca,* not gathering sternway the casualty occurred, fouled the flat damaging two plates on the steamer's starboard quarter; the main rail fore and aft was carried away; the accommodation ladder and all fixings destroyed; the windlass broken; the bulwark plate in midships started; the boats' davits carried away; the rails on topgallant forecastle broken and destroyed. She returned to her moorings for examination and repairs. On the following morning Lloyds' Surveyor, assisted by a Marine Surveyor, examined the steam-ship *Rebecca* lying at No. 2 Prinsep's ghât moorings, in order to make a survey on the damage done to her by collision with the Inland flat *Parwar* and found that on the starboard side the forward length of side plating of the poop in line with the main bulwark plate was stove in, bent and broken, and the rivets in the lower lap through the sheer strake started; five frames more or less bent, two being broken; the plate to be removed, the frames straightened and repaired, and two new sound plates fitted and rivetted as before; the linings and fittings in the cabin to be removed in order to get at the plates; and should be replaced as before after the repairs were completed; the after end of the after length of the main bulwark plate dented, buckled and broken, and the forward end of the same plate, and the after end of the bulwark plate adjoining it were slightly bent and chafed, and some of the rivets in the lower edge started, and two bulwark stanchions slightly bent. As it would cause too much delay to the steamer to have those plates removed, and being above deck, the Surveyors advised that they be repaired by working a broad butt strap on the after end of the after plate, and renewing the defective rivets, the plates could be renewed when the vessel reached home, if necessary; the bulwark plate, abreast the mainmast on the starboard side, to which the accommodation ladder platform fittings were attached, was dented on the lower side and the rivets started, and the cleat for ladder platform support torn off. To save time this plate should be repaired without taking it out, the defective rivets in the lower lap to be replaced with sound rivets and a new cleat fixed for the accommodation ladder if time permitted, the plate to be renewed, if necessary, when the vessel arrived home; the forward plate on the starboard side of the bridge-house, in line with the bulwark, was slightly bent inwards at the forward end, and the mouldings started; the rivets in a frame about the middle of the plate were started; the lining in the bridge-house bath-room, to be taken down to renew the defective rivets in the frame and replaced after the rivets were changed, the plate where bent should be set out to the original shape and the mouldings refastened; some 12′ from the stem on the starboard side, the lap of the second and third

plate from the gunwale was slightly dented in two places, but the rivets did not seem to have started; the fore peak should be cleared for examination of the rivets inside; the paint on the sheer strake and the plate below it on the starboard side was badly chafed and scored all along the side from the poop to the bow, the paint should be chiselled off where chafed and the plates coated with good paint as before; the after length of main rail on the starboard side split and started at the after end, to be removed to repair the damaged plates; the next length forward was shattered, split and damaged by the clamps for davits and accommodation ladder platform which were torn off when in collision with the flat; the whole rail from the poop to the bridge-house to be removed and replaced with a new rail, the same size as the old one; the main rail forward of the bridge was started up and the iron plates abreast the No. 2 hatchway torn off; a new length of rail nearly 31′ long to be fitted and fastened in lieu of the damaged length, and the iron sheathing plates repaired and refastened as before; the accommodation ladder and lower platform smashed, and part of it lost overboard; the upper platform torn away from the main rail and broken and a portion of the iron work lost; a new accommodation ladder and lower platform to be supplied and fitted with all iron work and stanchions as before; the upper platform to be repaired and refitted with iron clamps on the rail supporting the stanchions, and all necessary fittings as before, and any of the old iron work saved to be utilized; the forward boats' davits abaft the bridge on the starboard side torn away from the rail and bent, to be straightened and refitted as before; the iron work stanchions on the starboard side of the forecastle head torn from their fastenings in the covering board and bent, and the rod rails bent; all the stanchions on the starboard side to be taken off, straightened, repaired, and refastened to the covering board as before with large bolts, and the rods straightened and rove through the stanchions as before; the driving pinion wheel of the windlass on the forecastle head broken; a new wheel to be cast of good iron and fitted on the spindle, and the windlass put in good working order; the propeller which fouled the chain cable of the flat *Parwar,* to be examined by a diver for the purpose of ascertaining whether it had been damaged. The steamer was detained for 11 days for repairs, &c., after which she proceeded on her voyage. Value of damage to the *Rebecca,* ₹7,600. No loss of cargo. No loss of life.

[A Departmental Committee of Inquiry was held in the office of the Port Officer, Calcutta, on the 9th September, for the purpose of inquiring into the cause of the collision between the steamer *Rebecca* in charge of a pilot—and the flat *Parwar*—in charge of an assistant harbour master—resulting in damage to both vessels. The Committee recorded that having assembled pursuant to citation, the pilot of the steamer was called and the papers and correspondence relating to the case were read and filed. The witnesses for the prosecution and defence were then called and examined, and on the conclusion of their evidence the Committee proceeded to draw up their report. It was gathered from the statement of the master that on the 4th September, at 9-30 A.M., the assistant harbour master was relieved by the pilot, and at 1 P.M., the steamer *Rebecca* commenced to weigh anchor; at that time the *Parwar* was anchored in the middle of the river nearly a mile off. The master was on the bridge attending to the telegraph, the second officer and one man at the wheel, and the first officer on the forecastle head keeping a good look-out; the tide was running 6 knots, and the pilot after heaving the anchor off the ground started the engines slow ahead. The telegraph was rung full speed, which was instantly replied to by the engineer, and the helm put hard-a-port, but the vessel canted off to starboard with her head right across the river; she remained in that position for two minutes, after which the engines were stopped and reversed full speed astern. In going astern the helm was put a-port,

and the pilot in noticing her canting with her head up stream gave orders to right the helm, but to no avail. She was kept going astern for five minutes, when the pilot ordered her to be stopped and reversed the engines full speed ahead; she continued going ahead with the engines until she was in mid-stream, the *Rebecca* then canted off with her head partly across the river, and seeing that she would not go round any farther, the engines were reversed full speed astern; the master on observing that the steamer was drifting down fast on the *Parwar*, which vessel was then distant half a mile, he called the pilot's attention, mentioning that the vessel would not clear the flat by going astern, he therefore suggested to drop the anchor and veer out 20 fathoms of chain to allow her dredge over the ground with a view to try and let her drive inside the *Parwar*. Thereupon the pilot replied that it was no use, and simply ordered the engines to be stopped and reversed full speed ahead to ease the blow. Thus she was kept going that way for a mile until crossing the flat's cable when the engines were stopped, and immediately the *Rebecca's* starboard quarter struck the *Parwar* on her port bow; the crown of the latter vessel's anchor made two holes in the steamer's starboard side and dented in other plates. The flat then took a sheer to starboard, and the *Rebecca* continued driving down past the *Parwar's* port side, after which she cleared, the steamer's accommodation ladder and main rails and boats' davits, &c., being carried away. There was no effort made on the part of the flat either to pay out chain or to sheer her for the purpose of preventing a collision, but when the vessel was under the *Parwar's* stern the master of the flat came out from underneath a house on the deck and shouted out some abusive words. After clearing the flat the steamer dropped a good distance astern and anchored; subsequently the master deemed it prudent to return to moorings for repairs. The first officer stated that had the flat's helm been put to starboard the steamer would probably have gone clear. He was not aware whether the *Parwar* was ever hailed to veer cable or starboard her helm; that the vessel was not sluggish; that she did not, as a rule, take long in going ahead or astern; that her stern was never backed very close into the northern bank when turning round; that she was barely a third of the way from the northern bank, when she was at anchor; that on trying to turn her she never went nearer than one-third the width of the river from the northern bank; and that there was sufficient room to have gone either side of the flat drifting down broadside to the tide, but it would have been close work. The chief engineer stated that at 1 P.M., on the day in question the order was given to stand by, and 10 minutes afterwards slow ahead, from that time to 1-30 P.M., the engines worked ahead and astern alternately. The man at the wheel stated that when the anchor was aweigh the helm was put to port, but just as she had got round two points across the river, and had her sternway on her, it was again steadied; and when the accident happened the helm was amidships. Two of the witnesses stated that the *Rebecca* did not seem to answer her helm well on that occasion in consequence of the strong current. The master of the flat *Parwar* stated that on the afternoon of the 4th the watchman who was in charge of the deck called him saying that there was a steamer close to. At that time the flat was lying at anchor in mid-stream with 45 fathoms of cable out, abreast the Bengal mills below the Matia-brúj ghât. Thereupon the master, who was in the cabin, went up and observed the *Rebecca* proceeding close to the *Parwar*, but had no idea that an accident would occur. Immediately on finding that a collision was imminent he did not pay out cable, because it was taken to the capstan to heave short on the tide slackening so as to go into her buoy. He did not think that by veering cable and putting the helm hard-a-starboard the steamer would have passed clear, owing to the flat having too great an angle. The Committee after a careful consideration of the evidence were of opinion that the collision was primarily the result of unskilfulness on the

part of the pilot in having kept the steam-ship *Rebecca,* a vessel of small power, going ahead and astern in mid-stream in the hawse of the flat *Parwar* with a strong ebb-tide running, instead of backing her stern close towards the northern bank and keeping her there until below the *Parwar;* and, *secondly*, the Committee were of opinion that the master of the flat was much to blame in having obstructed the navigation in being at anchor in mid-channel at Garden reach, and not being able to slack away cable, when by so doing the collision might have been avoided.]

The Officiating Port Officer recorded that the steamer *Rebecca* was taken charge of by the pilot at 9-30 A.M., and commenced to get the vessel underweigh at 1 o'clock, the tide being then about three-quarters ebb, and from the time he got the steamer underweigh to the moment of the accident the evidence all proved that he handled the vessel in a most unskilful manner, and the Officiating Port Officer entirely concurred with the finding of the Departmental Committee of Inquiry that the cause of the casualty was due to unskilfulness. The pilot admitted that the *Parwar* was anchored in mid-stream before the *Rebecca* was got underweigh, and knowing that he had a weak-powered steamer to deal with it seemed to have been a most suicidal manœuvre to have attempted to turn across the flat's bows in such a strong ebb-tide as was then running; and the pilot did not even take the precaution, knowing the power of his vessel, to steam right up to the Lower Bishops' College sand buoy, and commence to turn the *Rebecca* as high up as the Port Rules allowed him to have done, and with which precaution he might have avoided a collision. It had been ascertained that the damage done to the steamer was R4,900, and the vessel having been detained in port through the accident for ten days, resulted in a farther loss of £200. Under the circumstances above mentioned, the Officiating Port Officer recommended that the pilot be placed on half earnings for a period of six months. The pilot had been placed on half earnings for three months and severely censured for grounding the ship *Mylomene* on the Gaspar sands, in July 1882. The second paragraph of the finding of the Departmental Committee of Inquiry was with regard to the position taken up by the flat *Parwar* in charge at the time of an officer holding a certificate as an Inland commander. This officer appeared from the proceedings of the Departmental Committee of Inquiry and the report by the assistant harbour master to have anchored the *Parwar* in mid-stream, and took no farther trouble about the flat, but merely let go his anchor without any reference to the assistant harbour master, and was waiting for slack water to haul into moorings; and he farther, in evidence, stated that he knew nothing of any Port Rule as to the limit of the anchorage ground as prescribed under Port Rule 23*a;* and, lastly, when a collision was inevitable, and which might have resulted in loss of lives and valuable property, he gave no assistance, nor did he in any way attempt to avoid the casualty, which the Departmental Committee of Inquiry very rightly considered would have been avoided had he taken prompt action. The Officiating Port Officer considered that, although not directly responsible for the accident, the master of the *Parwar* deserved to be punished for his culpable negligence and disregard or ignorance of the Port Rule. His employers had already dismissed him from their service, and he should be punished—remembering that he had received severe punishment from the owners—by having his certificate suspended for a period of three months.

The Lieutenant-Governor of Bengal, accepted the opinion and the finding of the Departmental Committee of Inquiry, that the collision was the result of unskilfulness on the part of the pilot, and the recommendation of the Officiating Port Officer that the pilot should be placed on half earnings for six months; but having regard to the pilot's previous history, His Honour was unable to consider that a sufficient punishment. In August 1882 the pilot was placed on half

earnings for three months and severely censured for the grounding of the ship *Mylomene;* it was observed that "a farther instance of negligence or carelessness on the part of the pilot will entail upon him very serious consequences, and will probably involve his removal from the Bengal Pilot Service." The Lieutenant-Governor considering it necessary, on the repetition of carelessness and negligence, to impose on him the severest punishment allowed by the Rules for Departmental Committee of Inquiry, directed that the pilot be placed on half earnings for a period of twelve months, and desired that the warning be conveyed to him that a recurrence of such misconduct would certainly be followed by the loss of his appointment. The Lieutenant-Governor remarked that the Officiating Port Officer's recommendation regarding the suspension of the master of the *Parwar's* certificate for three months could not be carried out. The master was not put upon his trial, and it seemed quite clear that the flat did not come within the definition of an "Inland Steam Vessel" as laid down in Act VII of 1879. He having been dismissed from the private employ of the Inland Flotilla Company in whose service he was, farther proceedings against him under the circumstances of the case were unnecessary.

263. The British iron flat PARWAR [of Calcutta, 200 tons register, no official number], from Calcutta to Narainganj with a general cargo. On the 4th September the flat, in tow of steam hopper barges, under charge of an assistant harbour master was proceeding up the Hooghly river, but when abreast No. 3 Matiabrúj ghât moorings the master assumed charge of the vessel without any warning to the assistant harbour master and dropped the anchor. Thereupon the assistant harbour master stopped the hopper barges, put them on full power ahead, and stopped the flat's sternway, but the master payed out 45 fathoms of chain, and when she was brought up he remonstrated with the master, who replied that the *Parwar* was far enough down and abreast his moorings. Thus, on the afternoon of that day, she was lying at anchor in mid-stream with 45 fathoms of cable out off the Bengal mills below the Matia-brúj ghât. A watchman, who was left in charge of the deck, called the master at 1 P.M., saying that there was a steamer close to. The master, who was in the cabin writing, thereupon went up and observed the *Rebecca* proceeding close to the *Parwar*, but had no idea that an accident would occur. Immediately on finding that a collision was inevitable he did not pay out cable, because it was taken to the capstan to heave short on the tide slackening so as to go in to her buoy, and shortly afterwards the *Rebecca* fouled the *Parwar* just at the break of the poop on the starboard quarter, and after drifting along the port side of the flat she cleared. The master was of opinion that by the flat veering cable and putting the helm hard-a-starboard the steamer would not have passed clear owing to the *Parwar* having too great an angle. He admitted having made use of some abusive language when asking whether there was not room for the *Rebecca* to have passed on the North side as the flat was just in swinging room from her buoy. The *Parwar* had a considerable portion of her roofing carried away, the hull badly bulged in, 4 stanchions destroyed and the anchor stock broken. Value of damage to *Parwar*, ₹1,000. No loss of cargo. No loss of life.

264. The British iron ship EVESHAM ABBEY [of Liverpool, 1,613 tons register, official number 74521], from Liverpool to Calcutta with a cargo of salt. On the 5th September the ship in charge of a pilot and in tow of the steam-tug *Retriever* proceeded up the Hooghly river as far as Diamond harbour, where she was anchored for the night, the Diamond harbour Custom house bearing N.W. by N ½ N. and the Diamond harbour flagstaff E. by N. ¼ N. At 7-30 P.M., owing to a defective link in the chain, the port cable parted and the anchor and 4 fathoms of chain were lost. The anchor and chain lost by the *Evesham Abbey* were subsequently recovered at a cost of ₹383. No damage to the ship or cargo. No loss of life. (The accident was attributable to a defective link in the chain.)

265. The British iron screw steamer COUNSELLOR [of Liverpool, 1,456 tons register, official number 76504], from Calcutta to Liverpool with a general cargo. On the 6th September the steamer under charge of a pilot was proceeding down the Hooghly river. At 7 A.M. whilst the vessel was crossing over from Melancholy point to the opposite bank and going full speed, she got into a strong eddy-tide, which had the effect of throwing her head a little over to port. The helm was then put hard-a-port, which she answered only one point, taking about 5 seconds, after which she refused to answer her helm for a moment or two. The pilot seeing that the steamer was approaching the bank rapidly, stopped and reversed full speed, but backing the engines seemed to have no effect on the vessel on account of the impetus the eddy-tide had given her, and at 7-30 A.M. she took the bank below Akra with her stem during the last of the ebb-tide, but came off again immediately. The pilot thereupon dropped the anchor, but found she could not get away from the locality in consequence of the steamer heading towards the bank though afloat all the time. Whilst waiting for the rising of the tide the steamer *Resolute* was passing down, and was asked to pass a hawser to her; but before any attempts could be made for the purpose, the flood-tide came in when the *Counsellor* straightened up to her anchor. The pilot after heaving up the anchor proceeded safely to sea. No damage to the steamer or cargo. No loss of life. (The accident was unavoidable.)

266. The German iron screw steamer PRINZ ALEXANDER [of Hamburg, 1,911 tons register, official number not reported], from North Shields to Calcutta, with a cargo of railway materials. On the 6th September the steamer was safely proceeding down the Red sea, when at 11 A.M., whilst off the Farisan islands, in latitude 17° 12′ N., longitude 40° 23′ E., she met with an accident to her machinery, the thrust shaft having broken. The weather was fine and clear, the sea smooth, and the wind a moderate breeze from N.N.W. The steamer was towed into Aden by the steam-ship *City of Agra* on the 9th. On the morning of the 11th, the Engineer Surveyor to the port, accompanied by the Engineer belonging to the service of the Aden Coal Company, proceeded on board the steamer *Prinz Alexander,* lying afloat in the Inner harbour and made a survey of the machinery of that vessel. It was reported that the length of the thrust shaft was completely broken between the two forward collars or at the first bearing of the thrust; two lugs of the cast iron thrust block were broken off about midway in the block, and six holding-down bolts were much damaged; the forward cap of the thrust block was broken in two pieces; on the second forward cap a lug was broken off on the port side; on the third forward cap the lug was broken off on the starboard side; the white metal was run out of the bearings as well as out of the caps of the thrust; the water service pipes of the thrust block were broken and otherwise damaged. To disconnect the broken pieces of shafting four coupling bolts were cut through, drilled out and so destroyed. On opening up the high pressure slide valve casing there was a countersink screw lying there, and on farther examination the slide face of the cylinder was broken for about 16″ in length. The Engineer Surveyors recommended that a new thrust shaft be fitted; the broken thrust caps to be renewed, likewise the white metal of the caps as well as of the bearings to be run up and refitted. A new casing or thrust block to be made and fitted, as well as new holding-down bolts for the same; the thrust water service pipes to be repaired and made good; and four coupling bolts to be properly fitted when the new shaft was fixed. Also as a temporary repair in Aden a brass piece to be fitted in the fractured part of the slide face of the cylinder and firmly secured by countersink screws as before, and on reaching Europe a new cylinder valve face should be fitted. They were of opinion that when those repairs were properly carried out, the vessel would be fit to proceed to

sea with safety. In the meantime the steamer had to await the arrival of a new shaft from home. The Surveyor to the port accompanied by the Engineer Surveyor visited the vessel on the 23rd October, for the purpose of surveying her finally and ascertaining whether the repairs and works recommended had been executed and completed satisfactorily. She was found to have a new thrust shaft fitted in two lengths with new coupling bolts throughout; a new thrust block with brasses at each end fitted, also new holding down bolts and nuts; the thrust friction caps were repaired and new wrought iron lugs fitted, also with the white metal run up and faced in the lathe; the water service pipes were repaired and the slide valve repaired with a brass patch secured by brass bolts. The thrust shaft was received from Europe on the 15th October, and the thrust bearing 6 days later. The Surveyors stated that great credit was due to the chief engineer of the vessel for the manner in which the repairs had been made good and the expedition used. They were of opinion that the *Prinz Alexander* was as good as she was before the accident, and pronounced her to be seaworthy and fit to continue her voyage. After having been detained at Aden 46 days, the steamer proceeded to her destination on the 24th. Value of damage to the steamer, cargo, and machinery not reported. No loss of life.

267. The British composite paddle steamer AJAX [of Rangoon, 118 tons register, official number 49331], from Rangoon to Maulmain, with a general cargo and 20 Native deck passengers on board. The master stated that the steamer left Rangoon at 9 P.M. on the 6th September and proceeded down the river without a pilot. At midnight she passed Elephant point, and the master then steered on the S.E. by E. course, going dead slow, but when the Eastern Grove light-house bore N.N.E. the course was altered to S.S.W., a cast of the lead was taken and soundings got at 7 fathoms. At 2 A.M. she got 6 fathoms, and soon afterwards suddenly shoaled into 4 fathoms and then into 2 fathoms, and before the vessel could answer her helm she grounded on the Spit sands off Elephant point, entrance to Rangoon river, Gulf of Martaban (Burma coast). The master tried to back her off but failed; at the time it was low-water, and nothing farther could be done, but a kedge and warps were laid out to heave her off next high tide, which they succeeded in doing. Soundings were then taken, and found 5′ soft mud under the stern, the forward end being dry. As the flood-tide made at 10 A.M. she floated off, and as she was not found to be making any water, proceeded on her voyage; she was aground for 8 hours. No damage to the steamer. No loss of cargo. No loss of life. (The master attributed the accident to a slight error in the compasses, and he had no chance of testing them during the bad weather which then prevailed The Port Officer was of opinion that this might have been avoided had the master not attempted to proceed underweigh in the dark; it was fine weather, the sea smooth, and the night dark.)

268. The British iron ship CRAIGBURN [of Greenock, 1,997 tons register, official number 87409] from Liverpool to Calcutta, with a cargo of salt. On the 5th September, the ship in charge of a pilot proceeded up the Hooghly river under sail, and at 7 P.M. that same day she anchored safely at Diamond harbour in $8\frac{1}{2}$ fathoms of water; the Custom house bearing N. by W., and the telegraph station E. by N. $\frac{1}{2}$ N. For want of steam power the vessel was delayed there 3 days; but on the evening of the 8th the tug *Clive* proceeded down the river and anchored alongside with a view to take her in tow early the next morning. At 7-15 A.M. on the 9th whilst unmooring the *Craigburn,* it being the very last of the ebb-tide, she took a sheer in an eddy-tide and parted the starboard chain at 60 fathoms shackle, thus losing with it the bower anchor. She was afterwards taken in tow by the steamer *Clive* and brought up the river. The anchor and chain lost by the *Craigburn* were not recovered

but were replaced at Calcutta by new ones at a cost of ₹480. The value of the lost articles was about ₹1,220. No damage to the ship or cargo. No loss of life. (The casualty was unavoidable.)

269. The British iron screw steamer GLENROY [of Glasgow, 1,411 tons register, official number 63860], from London to Shanghai *viâ* Pulo Penang with a general cargo. At 1-15 A.M. on the 11th September, the weather being dark and cloudy with rain, when the steamer was 20 miles West of Minikoi island, (Indian ocean) smoke was seen issuing in the after 'tween decks, and the circumstance on being reported to the master the engines were eased to half speed, when it was discovered that some bales of cotton yarn had caught fire. Thereupon the crew played water on the cargo, and in consequence of prompt measures being taken the fire was soon extinguished, and after pumping all the water out, the steamer proceeded full speed on her voyage at 3-35 A.M. that same day. Eleven bales of the cargo were more or less burned and damaged by fire, and the cargo in the 'tween decks more or less damaged by the water pumped in. Value of damage to the *Glenroy* and cargo not reported. No loss of life. (The cause of this casualty was not reported.)

270. The British iron screw steamer AUSTIN FRIARS [of London, 839 tons register, official number 44555], from Basra to London, with a cargo of wheat and dates. On the 12th September, the steamer under charge of a pilot, was proceeding down the Basra river (Persian gulf), when at 9 A.M. in consequence of insufficient water in the channel, her heel took the ground in the Shat-ul-Arab, but after jettisoning several packages of dates the vessel floated off, and safely proceeded to sea. The steamer was aground for 5 hours. No damage to the *Austin Friars*. Value of damage to the cargo not reported. No loss of life. (The accident was unavoidable.)

271. The British iron screw steamer CHIPCHASE CASTLE [of Hull, 1,423 tons register, official number 65259], from Hamburg to Hongkong *viâ* the Straits, with a general cargo. At 12-30 A.M. on the 13th September, the steamer grounded on the sands off Sheikh Burkhood, North side of Perim island, Straits of Bab-el-Mandeb (Red sea). The master stated that at the time of the casualty the bearing of the light on Obstruction point was S.E.½ E., the high light bearing S.E.½ S. Every endeavour was at once made to get the steamer off, but unsuccessfully. At daybreak signal for assistance was hoisted, but before any could reach her the vessel floated as the flood-tide made, at 10 A.M., and proceeded on her voyage. She was aground for 9½ hours. If the master's statement that, at the moment the vessel struck the ground, the occulting light on Obstruction point was visible be considered trustworthy, the Assistant Political Resident, Perim Division, was of opinion that there was no doubt that the light should be obscured to a still greater extent to steam-ships using the Small Straits when outward bound. The light-house keepers who were on watch that night, stated that the officers on board the steamer *Chipchase Castle* could not possibly have seen the occulting light at the time when the accident happened. The master said that whilst the steamer was on shore she did not bump at any time, and considering therefore that she had sustained no injury to her bottom, he declined to have a survey. The Indian Marine steamer *Amberwitch* arrived from Aden on the 30th of the same month and took observations at night off the North side of the island, with the result, it was presumed, that a still larger portion of the light would have to be occulted. No damage to the *Chipchase Castle*. No loss of cargo. No loss of life. (The accident was caused by the carelessness of the master.)

272. The British iron ship SIERRA CORDOVA [of Liverpool, 1,429 tons register, official number 76498], from The Mauritius to Rangoon, with 1,000 tons stone ballast. The ship on the 14th September, in charge of a pilot and in tow of the steam-tug *Ava,* proceeded up the Rangoon river (Burma coast),

and at 5 P.M. when in the harbour, he was relieved by an assistant harbour master. At 5-30 P.M., the tug ahead towing up the harbour at slack water and the assistant harbour master intending to make a running moor, the anchor was let go when off the Municipal bazar, but the chain parted after 60 fathoms had been payed out; she was afterwards safely moored in her berth. The assistant harbour master attributed the accident to the master of the *Ava* not having obeyed his orders. He said that he directed the tug to go dead slow from the time he took charge of the vessel, but he did not listen to him, and kept going ahead too fast, thereupon he let go the steamer's hawser, and to avoid a collision he had to drop the port anchor; on letting go the anchor the assistant harbour master told the crew to hold on to 15 fathoms, but without avail, and the chain parted at 60 fathoms, thus carrying with it the anchor. No damage to the ship. No cargo on board. The anchor and chain lost by the *Sierra Cordova* were subsequently recovered, and cost R82. No loss of life.

[A Departmental Committee of Inquiry was held in the office of the Port Officer, Rangoon, on the 30th September, for the purpose of investigating the casualty whereby the ship *Sierra Cordova* lost an anchor and chain through the negligence of the assistant harbour master. The Committee recorded that, having assembled pursuant to citation, the defendant was called and the papers and correspondence relating to the case were read and filed. The witnesses for the prosecution were then examined, and on conclusion of their evidence the Committee read their report. The Committee after having duly considered all the evidence brought forward in this matter, were of opinion that the accident occurred by the ship *Sierra Cordova* having too much way on when attempting to make the running moor, and that there was hardly time for the assistant harbour master to make up his mind as to what he intended to do from the time he boarded her. The Committee observed that from the evidence the order to stopper the chain was not given, which, under the circumstances, should have been, and the casualty would probably have been avoided. Since the lost articles had been recovered without loss of time and at little expense, and no damage to the hull, the Committee considered that a slight reprimand would meet the case and be a warning to the assistant harbour master in future to board his vessel in time in order to get her well under command before reaching the moorings. He was acquitted.]

The Vice-chairman after considering the papers of the case, was quite satisfied that the casualty to the ship *Sierra Cordova* was caused by the negligence of the assistant harbour master, and accordingly directed that he be severely reprimanded with a caution to be more careful in future in the navigation of his vessel.

273. The British iron ship FALLS OF CLYDE [of Glasgow, 1741 tons register, official number 80436], from Calcutta to Rangoon, with a cargo of grain and jute. The pilot relieved the assistant harbour master on the evening of the 13th September, the ship being then anchored at Garden reach, Hooghly river; everything was in readiness to permit her to proceed to sea the next morning in tow of the steam-tug *Retriever*. At 11 P.M. that same night the *Falls of Clyde* took a sheer into the moorings and dragged her anchor with 45 fathoms of chain, and the pilot could not heave in against the strong tide, he did not expect that the vessel would swing flood, but came to the conclusion that there was room for her to swing clear should she do so, and accordingly let her lie there till slack water. At about 2-30 A.M. on the 14th, the pilot finding that the ship was canting in towards the mooring buoy, he hove in chain in order to clear it but the *Falls of Clyde* unfortunately fouled the upper mooring buoy immediately below the Matia-brúj ghât, the buoy passing under the ship's starboard quarter. There was little strain on either the buoy or the ship, and as there was no tide, there was no damage apparently

done to the buoy. The *Falls of Clyde* proceeded to sea the next morning in tow of the steamer *Retriever*. No damage to the ship or cargo. No loss of life. (The casualty was accidental.)

274. The British iron ship MELANOPE [of Liverpool, 1,608 tons register, official number 74550], from Calcutta to Falmouth with a cargo of wheat. At 3-30 P.M. on the 13th September the ship, under charge of an assistant harbour master, was transported from No. 1 Prinsep's ghât moorings and safely anchored at Garden reach at 6 o'clock, ready to proceed to sea. At a quarter past 6 A.M the next morning (the 14th) the pilot weighed, and after having turned her round proceeded down the Hooghly river in tow of the steam-tug *Challenge,* and when at Melancholy point the *Melanope's* hawser parted, but in a very short time another was passed from the tug, after which she continued her passage to sea. Everything went on well until she got down to Anchoring creek. At 9 A.M. the tide being half ebb the ship was going down No. 2 track Nynan, and when just a little below the Anchoring creek she suddenly grounded on the mud and parted both hawsers. A few minutes afterwards she sheered in the eddy-tide and heeled over from 15° to 20°, and her master stated that had she been at all tender nothing would have saved her, but she fortunately soon righted herself. Immediately after the accident the pilot set the ship's foretopsail and topgallantsail, and she went farther to the southward and westward and floated off at 12-30 P.M., and was safely anchored to the southward of all the Anchoring creek tracks. The steamer *Challenge* also grounded on the Nynan flat, but she came off almost immediately without having sustained any damage. On the flood-tide making the tug passed hawsers, and at 1 P.M. she proceeded to sea in tow of the tug without any farther mishap. She was aground for 4 hours. No damage to the *Melanope.* No loss of cargo. No loss of life.

[A Departmental Committee of Inquiry was held in the office of the Port Officer, Calcutta, on the 21st and 22nd September for the purpose of inquiring into the grounding of the above ship. The Committee, after reading the order for the assembly of the Committee and the letters and reports attached to the case, proceeded to examine the witnesses, there being only two (the leadsman on board the ship and the master of the tug), the *Melanope* having proceeded to sea. The Committee recorded that from the evidence it appeared that the *Melanope,* under charge of a pilot and in tow of the steam-tug *Challenge,* turned round from Garden reach at 5-45 on the morning of the 14th September and proceeded down the river. At Melancholy point the ship took a sheer in the eddy-tide and parted her hawser, but a second one was passed from the steamer, after which she proceeded again. On passing Atchipur, the tidal semaphore indicated 14′; as she got across to Devil's point it fell to 13′; the pilot then opened out the points below Fisherman's point, when he observed 7′ up at Hooghly point. The master of the tug stated that the steamer was going full speed, and on rounding Fulta point 6′ showed at the semaphore, the pilot was on the forecastle, and ordered the *Challenge* to take No. 4 Anchoring creek track. The steamer continued down a little to the westward of Western marks on, and whilst going across she hauled in just below the Anchoring creek, when she grounded in No. 2 track Nynan, with her head to the eastward and parted both hawsers. Sail was made at once, and a few minutes afterwards she slued round with her head towards Hope's obelisk in an eddy-tide and rolled over about 15° to 20°, and within 4 hours floated and proceeded again on her way down the river. The master of the *Challenge* stated that he expected to have avoided the bad water at Nynan by taking a westerly track and hauling sharp across into the Anchoring creek; the wind at the time was fresh from the N.E., the weather fine and clear, and the tide ebbing at the rate of 4 knots an hour. The

master of the *Melanope* stated that the pilot told him that the information given by the Marine Authorities of the state of the river bars was incorrect he thereupon wrote to the Agents intimating to them the casualty to the vessel, and adding that if the pilot's assertion was true the Authorities were severely to blame, for had the *Melanope* heeled over not a soul would have been saved, with the strong eddy-tide and the whirlpools around the vessel. The Hooghly point serang (a native tide-watcher) stated that when the ship struck the ground between No. 2 track Nynan, and No. 2 of the Anchoring creek, the tidal semaphore showed 5′ 8″ of water. The leadsman stated that he did not notice the rise of tide at Moyapur, but the first he saw was 6′ whilst going down from Fisherman's point towards Fulta, and when the accident occurred he came out and found 6′ showing at the Hooghly point semaphore; the ship did not roll heavily as the line of her deck was above water. He stated that he had not been in the chains at all since leaving port, but a tow boat-wallah was heaving the lead; the pilot did not order him to look after the steering of the vessel in lieu of going into the chains, but after the casualty happened he hove the lead and found 3 fathoms along the port side, but no soundings were obtained on the starboard side. The Committee observed that they regretted that they had only the opportunity of examining *two* witnesses—one of whom, a leadsman apprentice in the service, was *a beginner,* ignorant of the marks in the Hooghly river, and the other was a licensed tug pilot, master of the steam-tug *Challenge.* The evidence of the latter was at variance with the written report of the pilot of the ship *Melanope,* that of the Hooghly point serang and the leadsman. The Committee observed that the leadsman stated that the first he saw was 6′ when the vessel was going down from Fisherman's point towards Fulta, but the statement of the master of the tug was that when the vessel opened out the point below Fisherman's point there was 7′ up at Hooghly point semaphore, and when she shut in the semaphore there was still 7′. showing, whereas from the translated report of the serang it appeared that when the vessel grounded the semaphore pointed out 5′ 8″, and the pilot in his report of the casualty made no mention of the water showing at the tidal semaphore. The Committee therefore were of opinion that the leadsman's version of the story was the correct one, as it seemed improbable that the water at that time of tide would have fallen so much as 10″ whilst the *Melanope* was proceeding down so rapidly from Fulta to the Anchoring creek, and consequently less than 6′ of water above zero should have been expected by the time the ship arrived at Nynan. The Committee were farther of opinion that the master of the steamer's evidence was untrustworthy as to where he towed the vessel; the tracks at the Anchoring creek were undefined, and it seemed that his judgment was faulty. The report of the pilot, the bearings taken by the leadsman, and the position named by the Hooghly point serang, placed the *Melanope* with the upper Nynan mark bearing N. E. ¾ E., and the Anchoring creek obelisk S.E., which the Committee believed was the correct position where the vessel had been aground; the third bearing did not coincide, but it was some distance away, and consequently a less reliable bearing. The report of the depth of water for the Anchoring creek tracks copied by the pilot from the books in the office of the Port Officer was for the 11th September instead of the 12th; and when compared with the Hooghly point serang's book for the 12th he found that they did not agree. The pilot at that time did not seem to have been aware that he had made a mistake in taking the report of the 11th for the 12th, and hence the statement made by the master of the ship *Melanope* to the effect that the Marine Authorities deserved to be blamed for having given the pilot the wrong water. After having carefuly weighed all the evidence forthcoming in this case, the Committee were of opinion that the pilot should have been more careful in obtain-

ing the last reports of a locality that was in an unsettled state and of the Anchoring creek tracks which were rapidly deteriorating. On the 8th the reports gave for the Anchoring creek tracks Nos. 3 and 4 18′ and 18′ 3″, respectively, and in the report taken by the pilot of the *Melanope* for the 11th for the same tracks was 16′ 3″ and 17′ 9″, which should have been accepted by him as an indication that he could not rely on there being as much water three days later, and should therefore have determined him to anchor at Fisherman's point. Of the whole of the Nynan and Anchoring creek tracks on the 14th there was only one, *viz.*, the No. 4 Anchoring creek, in which there was more than what the *Melanope* drew, and that one only exceeded her draught by 4″ or 5″; and with the strong tide to the westward and the slack tide farther in to the eastward, it was extremely doubtful whether a vessel could have been kept in that track providing she could have arrived at it safely. The Committee therefore much regretted that they arrived at the conclusion that the pilot committed an imprudent act in having proceeded on beyond Fisherman's point which led to the grounding of the ship *Melanope*.]

The Port Officer recorded that the accident to the ship *Melanope* was found by the Dpartmental Committee of Inquiry to have been due to the default of the pilot in—*firstly*, carelessness in not having acquainted himself with the latest water reports in the Port Office, or by not having made any allowance for the progressive decrease in the depth available indicated by the reports of preceding days. He seemed also to have taken the report of the 11th instead of that of the 12th, for which mistake no excuse could be given as far as the books of the Port Office were concerned, the entries being quite clear. Certainly on 14th a careful pilot with the depth of water of the 8th, 11th and 12th before him should not have expected so much as 17′, even in the best track. *Secondly*, the Committee found that the vessel grounded even above No. 3 track where the official report gave only 14′ 3″ depth of water; the semaphore indicated only 6′ rise, and the tide was half ebb and falling fast; the ship drew 22′ 2″ and the margin allowed by the pilot, even assuming no deterioration in the track since the 12th, was only 13″ in the *best* track, this with a falling tide was exceedingly rash. His proper course undoubtedly was for the vessel to have turned round at Fisherman's point and waited until the tide began to rise. The Port Officer observed that the tides were very strong, and that the *Melanope* on grounding ran a risk of turning over; as it was, fortunately *no damage* was done, and the vessel proceeded on her voyage. It appeared farther that the pilot excused himself to the master of the ship by making an erroneous statement regarding the Port Office, which no doubt would be reported in England to the owners and underwriters. The Port Officer was of opinion that it would not have been possible to commit the pilot before a Court under Act XII of 1859, as there was so little evidence produced, the vessel having left port, but recommended that the Government should deal with the case summarily, and it was desirable that the pilot's previous record should be considered. He stated that the pilot was not wanting in knowledge of his work, but he had shown on several occasions a culpable degree of rashness, but there had been no suggestion of intoxication. In the years 1877 and 1881 he had been cautioned and punished by loss of steps on the list and reduced earnings, and in the present instance the Port Officer recommended that the pilot should be placed on half-earnings for six months and severely reprimanded.

The Lieutenant-Governor of Bengal accepted the finding of the Departmental Committee of Inquiry that the grounding of the ship *Melanope* was the result of imprudence on the part of the pilot. The Port Officer's recommendation that the pilot should be placed on half-earnings for a term of six months and severely reprimanded; but having regard to the pilot's previous history and the remarks made by the Port Officer in the present case, His Honour was unable to consider that a sufficient punishment, and accordingly directed that the pilot be

placed on half-earnings for a period of nine months, and that he be severely reprimanded and warned as to his future conduct.

275. The British iron screw steamer REBECCA [of London, 1,021 tons register, official number 81578], from Calcutta to Naples with a general cargo. On the 14th September the steamer, in charge of a pilot, was proceeding down the Hooghly river. At 7-45 A.M. it was ebb-tide, and after crossing the Moyapur bar she was caught in an eddy-tide above Devil's point, and although the helm was put hard-a-port, touched the bank on the upper portion of the point with her port bow. The pilot reversed the engines and backed off immediately, when she safely proceeded to sea. No damage to the steamer or cargo. No loss of life. (The casualty was unavoidable.)

276. The British iron screw steamer MAHARANI [of Liverpool, 1,617 tons register, official number 81974], from Port Blair to Calcutta with a general cargo. On the 16th September the steamer was proceeding up the Hooghly river under pilotage charge; at 11-15 A.M. whilst in Kukrahâti reach, it being the last of the ebb-tide, 6′ showing at Hooghly point semaphore, the pilot was keeping the vessel in the slack at a moderate distance from the northern bank with a view to avoid the strength of the ebb-tide, and when nearly three-quarters of a mile below Roychak tree the helm was starboarded for the purpose of crossing over to Luff point, but the *Maharani* after only answering the helm two or three points, took the ground very gently on the northern bank of Kukrahâti reach. The steamer, however, backed off at 11-35 A.M. and continued her way up the river. She was aground for 20 minutes. No damage to the *Maharani* or cargo. No loss of life. (The casualty was accidental.)

277. The British iron screw steamer BOKHARA [of Greenock, 1,700 tons register, official number 68397], from Calcutta to London with a general cargo. On the 17th September at 1 P.M. the vessel during the last quarter of the ebb-tide turned round at Garden reach and proceeded down the Hooghly river in charge of a pilot going full speed, but when two-thirds round Sankral reach the steam steering gear got jammed with the helm to port, whereupon the pilot stopped the engines and reversed them full speed, but at 1-40 P.M. the steamer took the bank at Sankral reach; the tide taking the vessel on the starboard quarter canted her round head up the river, and four minutes afterwards she floated again, when the pilot dropped the port anchor and brought her up just above Melancholy point. Subsequently at 2 P.M. the pilot, after connecting the hand steering gear aft, hove up and returned to Garden reach. At 3-30 P.M. she turned again and proceeded down the river, anchoring for the night at Hooghly point. No damage to the steamer or cargo. No loss of life. (The accident was unavoidable.)

278. The British iron screw steamer PURULIA [of Glasgow, 993 tons register, official number 78644], from Rangoon to Maulmain with a general cargo and 7 passengers on board. At 6-20 A.M. on the 18th September the pilot boarded the steamer, and everything being clear, she proceeded up the Salween or Maulmain river (Burma coast). On passing the tide gauge at Jack's creek the pilot observed 10′ 2″, and immediately went half speed, and then slowed down and told the master that he was going to anchor off Natmaw, as the gauge there had shown 10,′ whereupon he stopped the vessel and let go the anchor; the master then asked what time the steamer would next get underweigh, and was informed in another half hour, as by that time the tide would rise sufficiently to allow the vessel to cross the Lady Clifford channel, and according to the time shown in the tide table, it was fully an hour to high-water. At 25 minutes past 10 o'clock that morning, the tide having risen 2″, she got underweigh and proceeded ahead full speed. Having crossed the Lady Clifford channel in safety, and when rounding the Kyauktan shoal, the pilot observed by the shore that it was high-water, the leadsman gave 6 fathoms, then 5 fathoms, then 4 fathoms, and lastly 3½ fathoms, when the *Purulia* grounded on the southern spit of the sand

which had worked towards the channel. The pilot immediately stopped and went astern full speed, set the foretopsail aback and also ran out a kedge anchor in deep water, but finding it of no avail, the engines were stopped and the foretopsail lowered, after which the master proceeded up to town (Maulmain) to get boats to lighten her of some of the cargo. Soundings were taken round the vessel and found 18′ from ahead to the bridge, and from thence to the stern deepening gradually to 22′. At 11 A.M. the steamer discharged a considerable portion of her cargo, lightening her 2′ forward and 1′ aft; she floated with the assistance of her own steam during the night high-water, when she proceeded up to her berth off the town. She was aground for 12 hours. An examination was made on the vessel the next day by the Surveyor to the port, assisted by the Engineer Surveyor, when it was found that she was perfectly tight, and showed no sign of having sustained any damage either to the hull, machinery or appurtenances. They therefore were of opinion that she was seaworthy in every respect and fit to continue on her voyage. Value of damage to the steamer, ₹100; cargo, ₹100. No loss of life. (The pilot attributed the cause of the casualty to the small rise of tide, *viz.*, 9′ 9″, whereas according to the predicted rise there ought to have been at the very least a rise of 12′, and also to a shoal which was working into the channel. With regard to the small rise he stated that the tides had never been known to fall off after the rains so early in the year, and calculating upon the predicted rise, together with the increased water (on account of the rains) in the channel, and the water indicated on the gauge, he considered that it would have given him a sufficient margin to proceed up the river at the time he did. No Court of Inquiry was held concerning this casualty owing to the *Purulia* not returning to Maulmain.)

279. The British Indian iron screw steamer NEDERLAND-EN-ORANJE [of Bombay, 1,513 tons register, official number 1 of 1885], from Bombay to Jiddah, with a general cargo and 650 (pilgrims) passengers on board. At 5 A.M. on the 19th September the steamer, when in latitude 13° 57′ N., longitude 51° 22′ E. (Arabian sea), met with an accident to her machinery, the pin of the crank shaft having broken; cause not reported. It was fine clear weather and the sea smooth with a light westerly wind. She put into Aden for survey and repairs. Value of damage to the steamer, about £100. No loss of cargo. No loss of life.

280. The British wooden ship RIALTO [of Liverpool, 1,462 tons register, official number 83213], from New York to Calcutta, with a cargo of kerosine oil. On the 20th September, the ship was riding at anchor about 4 miles W. ½ S. of the Eastern Channel light-ship (Sandheads). At 7 A.M., whilst the pilot was heaving in the chain, the hawsepipe was carried away owing to bad weather, when he slipped the anchor with 30 fathoms of chain in order to prevent farther damage to the vessel. Subsequently, on arriving at town (Calcutta), the ship was docked for examination after discharging her cargo, and her bottom was found uninjured; the hawsepipe, which was damaged, was repaired and the ship supplied with a new anchor and chain. Value of damage to the *Rialto*, ₹5,000. No loss of cargo. The anchor and chain lost were not recovered, but they were replaced at Calcutta at a cost of ₹1,678. The value of the lost articles was about ₹672. No loss of cargo.

281. The British Indian wooden brig STREE RAMULU [of Cocanada, 237 tons register, official number 21 of 1883], from Cocanada to Maulmain, with a cargo of seeds and tobacco. On the 20th September, at 4 P.M. when passing close to the Cocos islands in about latitude 14° 01′ N., longitude 90° 42′ E. (Andamans), the brig encountered a terrific gale from the S. E. and shipped large quantities of water; the gale increased with a mountainous breaking sea accompanied with blinding rain, and the mainmast with all the sails, yards, and gear were carried away with the foretopmast; carrying with it all the sails on

the foremast. She was completely immersed in the heavy seas, and was every moment in imminent peril, and after great difficulty she put into Akyab in distress. Value of damage to the brig, ₹6,000; cargo worth ₹1,000 lost, the remainder was saved. The crew 35 men and 13 passengers. No loss of life.

282. The German wooden schooner FRANZ [of Brake, 356 tons register, official number not reported], from Calcutta to Port Natal, with a cargo of rice. On the 20th September, the schooner in charge of a pilot and in tow of the tug steamer *Columbus*, proceeded down the Hooghly river and anchored below Saugor at 5 P.M. the same evening. At 7-25 A.M. on the following day the pilot weighed and continued under sail towards the Pilot brig, but on arriving at the Sandheads, in consequence of the pilot not being able to be taken out, and also owing to the strong set to the westward, the schooner anchored about 6 miles to the S.W. of the Eastern Channel light-ship. At 8 P.M. there being a heavy easterly wind blowing, the *Franz* commenced to drag her anchor with 100 fathoms of chain, thereupon the pilot, slipped the anchor and made sail for the safety of the vessel. No damage to the schooner or cargo. The anchor and chain lost by the *Franz* were not replaced at Calcutta, nor were they recovered. The value of the lost articles was about ₹1,808. No loss of life. (The casualty was attributable to the strong set to the westward.)

283. The British iron ship BRITANNIA [of London, 2,160 tons register, official number 89518], from Melbourne to Calcutta, in stone ballast, encountered a cyclone 60 miles E.S.E. of False Point light-house, in latitude 19° 55′ N., longitude 87° 25′ E., (Orissa coast). The following was extracted from the report of the master of the *Britannia*—21st September, noon, the vessel's position by observation was established, latitude 20° 21′ N., longitude 87° 25′ E., barometer 29′ 60′ wind then N. N. E., strong and squally; passed the ship *Champion* proceeding to the S. W.; 2 P.M., wind about N. E., strong with heavy squalls; the master ordered the topgallant yards to be sent down. The barometer being low at 4 P.M. the wind increasing, and the sea very high from S. E.; 8 P. M. the wind shifted to the eastward blowing very hard, when the upper topsails were furled; 10-30 P M., the barometer 29′ 40 the wind raging with hurricane force accompanied by much rain; the lower topsails were furled. Midnight gale terrific with much lightning and rain; barometer 29′ 20. From 1 A.M. to 3-0 A.M. on 22nd the cyclone was at its maximum, the barometer going down to 28′ 20 which was the lowest reading of the aneroid; the position of the vessel was 19° 55′ N. latitude, and 87° 25′ E., longitude, and about 60 miles E. S. E. of False point light-house (Orissa coast); the lightning was very vivid in the height of the gale, and owing to the heavy rain the men could not see the masts and yards. At 3 A. M. it was calm for nearly half an hour, the aneroid being much agitated during that time. Subsequently the wind changed to West, blowing with terrible force, and backed afterwards to S. W., and blew up to 6 A.M. with hurricane force much rain and lightning; an hour afterwards the wind shifted and the barometer began to rise. About 8 A. M. it was blowing a heavy cyclone from S. W., and the sea most fearful; at 9 A.M., it was perceived that the vessel was driving into coloured water; the master sounded and got bottom at 30 fathoms mud. Noon, ship's position was stated to be 20° 12′ N. latitude, 87°06′ E. longitude, barometer 29′ 20. At 1 P.M., vessel driving amongst a lot of persons clinging to hatches, spars, and life buoys, the master immediately ordered one of the life boats to be put out and picked up the first officer and one man belonging to the ship *Merchantman*, which vessel had foundered at 4 A.M., 20 miles E. S. E. of False Point light-house; the master saw other men floating round on wreckage, but could not render any more assistance owing to the sea being most fearful. During the cyclone the ship lost her fore and maintopgallantmasts and yards, with the heads of the topmasts and the lower foretopsail yard; the truss of the foreyard gave way,

the foretopmast was badly damaged, and other spars and masts, &c., damaged and destroyed ; and the whole suit of sails carried away from the yards except the mainsail and jib, which were damaged. The wind kept at S. W. and S. S. W., which brought the ship up to the Eastern Channel light-ship on the afternoon of the 23rd, where she got a pilot on board and was safely conducted up the Hooghly river and anchored in moorings on the following day. On the morning of the 25th September, 20th October and 16th November, Lloyd's Surveyor accompanied by a Marine Surveyor proceeded on board the ship *Britannia* lying afloat at No. 1 Prinsep's ghât moorings, in order to make a survey on the damage sustained by that vessel during the cyclone of the 22nd September. After a careful examination of the vessel it was reported that the bowsprit end appeared to be slightly bent to starboard ; the wedges at knight-heads started and the fastening bolts of the heel loose; the fore and maintop-gallant and royal masts with double topgallant yards and royal yards, and all sails, backstays, rigging, and gear were blown overboard; the fore and maintopmast heads broken off above the rigging; tressletree, crosstree and outriggers broken bent and damaged ; the foretop was broken by the fall of the lower topsail yard; the fore yard was slightly bent in the middle, and the rivets started, the truss broken and the truss bands injured; the lower fore topsail yard was broken and lost overboard with all gear attached ; the crane of the lower topsail yard broken, and the supporting stay bent and broken ; the upper foretopsail yard badly chafed in the slings and other places and thus rendered unserviceable ; the upper topsail yard and truss broken ; the fore masthead damaged under the rigging; the tressle trees bent; futtock shrouds on starboard side bent and broken ; the main yard and main, upper and lower topsail yards slack in the bands and some of the iron work bent; the mizentopmast sprung at the sheave hole and topgallantmast sprung; the mizen-topgallant and royal yards sprung ; the mizentopsail yard bands loose ; the side light screen on the starboard side broken and the iron stanchions bent ; two side lamps washed overboard ; a globe riding light lost; two bulwark plates at fore rigging on the starboard side badly bent and broken, apparently by the wreck of masts and yards knocking against them ; the forward boats' skid started and the fastenings of the stanchions torn up from the decks ; a stanchion of the second forward boat's skid broken ; the starboard forward boat slightly damaged ; the bulwarks on the starboard side at the main rigging broken in several places, apparently by the wreck of the masts and yards knocking against them ; the cement in the guttering round the bulwark stanchions and other places cracked ; the fyfe rail round the mainmast broken and the lead pipe of the water tank and pumpstand broken and injured ; a cast iron rail socket for quarter boats' davits broken ; the mouldings and top piece of the after boats' skids chafed and broken, and the fastening of the stanchions started ; beds of harness casks broken, bow of life boat stove in ; the screw steering gear badly shaken, the two nuts of the screw and the two spokes of the steering wheel broken ; a complete suit of sails blown away with all gear attached ; the pendants, braces, runners, lifts with sheets and blocks to upper foretopsail yard lost ; all the gear attached to lower foretopsail lost except the topsail sheets ; double lifts, foot ropes, braces and all blocks attached to foreyard lost ; the main braces chafed and broken, and lift block broken and lost ; the upper and lower maintopsail braces and blocks broken and lost the cross jack, mizentopsail, topgallant and royal braces chafed and broken ; the forestay (wire) broken, the foretopmast backstays broken on both sides ; the fore and main rigging badly chafed ; the maintopmast backstay chafed ; the mizen rigging starboard swifter broken, and the rigging chafed ; the bulkhead of the store rooms under the topgallant forecastle on both sides started and broken ; two lengths of leather hoses washed away ; ventilator skylight on top of deck-houses broken ; three dead lights of skylight on top of houses

broken; the caulking of decks strained and slack; two pig styes broken and damaged; side of paint locker damaged; one ton of paint and 80 gallons of paint oil of sorts lost; and the paint on the top sides badly chafed, apparently by the wreck of the masts chafing against the sides. The Surveyors visited the vessel on the 21st December for the purpose of examining her finally, and ascertaining whether the repairs and works renewed had been executed and completed satisfactorily. It was found that all the repairs recommended, and those subsequently verbally advised when inspecting the vessel in course of repairs have been well and faithfully carried out, and that she was quite tight and in every way in a first rate condition. The Surveyors were of opinion that the ship *Britannia* was tight, staunch and strong, was well supplied with sails, ropes and gear, and fit to carry a dry and perishable cargo to any part of the globe, and was a first class insurance risk. Value of damage to the ship, ₹50,000. No cargo on board. No loss of life.

284. The British Burman wooden barque COLONEL FYTCHE [of Maulmain, 407 tons register, official number 32772], from Maulmain to False Point in ballast. It was explained that the tindal brought the barque round from Maulmain to False Point harbour (Orissa coast) with sand ballast, and reached that port on the 21st September, when she anchored inside the harbour in order to load a cargo of rice for The Mauritius. He stated that the vessel was lying with two anchors down from the very first, as he observed that the weather began to assume a threatening appearance with a fresh wind from the N.E. At 4-30 P.M. the wind was blowing from the N.E. in squalls, with a heavy overcast sky and heavy banks of clouds rolling up from the same quarter. At 8 P.M. the wind became stronger and the squalls heavier and more frequent from the N.N.E. until between 2 and 3 A.M. on the 22nd, the wind, still from that quarter, increased to a gale with very strong gusts. At 3 A.M. the wind was blowing a hurricane and the squalls were terrific, with blinding sheets of rain, and the barometer falling rapidly; the sea being very high the two anchors parted, each with 20 fathoms of chain; a third anchor was then let go, and before it could reach the bottom the vessel began to roll and the heavy seas dashed over the decks fore and aft, sweeping away everything moveable on board; a boat which was made fast to one of the davits broke from its fastenings and was carried away. At 6-15 A.M. the wind hauled a little to the North, the fore and the maintopmasts with all the yards and sails were carried away; at 6-30 A.M. the wind was at N.W., it suddenly lulled and became almost calm, hauling to the westward At 6-50 A.M. the wind was at W.S.W. and blowing with greater force than ever, and the gusts most terrific. The barque was driven by the storm-wave up the Agitator creek a long way inland; at 7 A.M. the wind and weather still the same; the storm-wave rose 15′ above the ordinary level of the ground, inundating a large tract of land for a distance of about·12 miles inland so that neither any living creatures nor houses escaped. Hookeytolla (the harbour station) was completely washed away with most of the residents; the Port Officer, with his wife and family, and the Customs authorities were all drowned. Four boatmen from Hookeytolla arrived at the light-house after the cyclone, and reported to the Superintendent that they, with one or two other cargo boatmen, were the only survivors, and that they were saved through taking shelter in the Refuge-house, which was the only building remaining on that island. They also reported that they last saw the Port Officer, his wife and family on the morning of the storm on the top of their bungalow. That was during the lull in the cyclone (the centre of which must have been passing over the port of False Point), and they stated that with the first burst of the wind from the W.S.W. the bungalow was washed away and they saw no more of them. The vessel made no water, and it was 8 o'clock when the storm ceased; the light-house then bore East; the cabin doors and glass venetians of the vessel were found broken and destroyed, the rudder wheel totally useless, and all the sails carried away

Between the 25th and 30th of that same month the whole of the ballast was landed and the vessel having been lightened attempts were made to float her, which were successful, and the barque was warped in the channel, whence on the 9th October she was with great difficulty taken into the inner anchorage. She subsequently sailed for Cocanada for examination and repairs. Value of damage to barque *Colonel Fytche*, about ₹20,000. No cargo on board. No loss of life.

285. The British Indian dhoney SRI PRASAMA MALLESWARASWAMI [of Masulipatam, 58 tons register, official number not known], from Barúva to Balasore with a cargo of gram, turmeric and cocoanuts. On the 22nd September the dhoney was lying safely at anchor in the harbour of False Point (Orissa coast), and during the early morning a terrific cyclone began blowing, with blinding rain; at 8 A.M. she dragged her anchors, and was washed up on the beach at Reddie point; the masts and sails were carried away, and during the heavy storm-wave all the deck gear was swept overboard. On the 2nd October she floated off, and was taken to Patamúndi in order to refit. Value of damage to the dhoney, ₹500; cargo worth ₹300 was lost, and the remainder was saved. One life lost.

286. The British iron brig CASSANDRA [299 tons register, no official number, belonging to the Bengal Government], was employed on Pilot duties at the Sandheads. On the afternoon of the 21st September the brig tried to weigh anchor for the purpose of taking out the pilot of the outward bound schooner *Franz*, but as the master was unable to heave in more than half a fathom of chain, he made the signal "unable to weigh." The *Franz*, therefore, after a little time anchored, and after dark was not seen. The brig returned to the station at midnight, and anchored 6 miles S. W. by S. of the Eastern Channel light-ship, and at 8-30 A.M. of the 22nd the wind was from E. S. E. blowing half a gale, when the chain parted at 96 fathoms, thus losing the anchor. The floating light-ship was in position, but her masthead ball had gone; the *Cassandra* also communicated with the brig *Coleroon*, and found that she, too, had lost an anchor and chain. No damage to the brig. The anchor and chain lost were not recovered, and were replaced at Calcutta at a cost of ₹1,181. The value of the lost articles was ₹260. No loss of life.

287. The British composite brig COLEROON [346 tons register, no official number, belonging to the Bengal Government], was employed at the Sandheads on Pilot duties. The master stated that on the early morning of the 22nd September, whilst the brig was riding out a severe S.E. gale about 4 miles to the S.W. of the Eastern Channel light-ship, Sandheads, the chain parted in the hawsepipe at 115 fathoms, thus losing the anchor besides damaging the hawsepipe. The master stated that there seemed to have been a bad flaw in the link where the chain parted, as there was a small piece taken clean out of the inner part of it. At the time of the casualty the brig was riding head to wind, and was pitching heavily in the tremendous sea which had got up suddenly during the night, and it was very probable, considering the good trim the *Coleroon* was in, she might have ridden the gale out safely had it not been for the defective link in the chain; the sudden recoil of the chain snapped and damaged the hawsepipe. The anchor and chain lost were not recovered, but they were replaced at a cost of ₹2,311. The value of the lost articles was ₹1,401. No loss of life.

288. The British iron paddle steamer ALEXANDRA [of Calcutta, 270 tons register, official number 48740], was employed as a tug on the Hooghly river. On the morning of the 20th September, she was towing the ship *Viscount* down the Hooghly river, and when at Mud point anchored for the night. At 8-25 A.M. the next morning she weighed and proceeded to sea, and at 11-25 A.M. whilst passing Saugor island light-house, there being a moderate

breeze from the N.E., the *Viscount* set the square sails on the main with all the staysails, but at 40 minutes past 2 o'clock the wind hauling more to the eastward took in all sail. At 5 P.M. the master of the tug observed a strong set to the westward, and the steamer scarcely holding her own in the Wind channel, heading S.E., he sounded the whistle, when the pilot of the *Viscount* proceeded forward and the master asked him what he intended to do as there were grave doubts whether the tug would be able to tow the ship out; thereupon, by motion of the hand, both the pilot and the master of the *Viscount* gave orders to proceed on, the ship at the same time setting fore and aft sails. At dusk the Intermediate light-ship bore N.E. distant 3 miles. At 9 P.M. when that light bore N.N.E., the *Viscount* took in sail, the bearings of the light altering from N.N.E. to N.E., the wind increased to a gale with high breaking sea. An hour afterwards the pilot made signs to the tug with blue lights to turn round; it was then too late, for the ship had given her sternway, the engineers driving their hardest to pull the *Viscount* through, she having her helm a-port and just then she was struck by a heavy squall whilst her crew were setting the foretopmast staysail. At 10-20 P.M. when the pilot of the ship slipped both hawsers the tug fell off to the northward, and heavy seas filled her decks fore and aft. The master finding that as the steamer was running to the N.W. with a long scope of hawsers and pendant trailing behind, she refused to answer her helm, ordered the hawsers to be cut in consequence of the crew not being able to haul them in; the waves washing about her decks and the vessel shoaling her water to $5\frac{1}{2}$ fathoms, the master was unable to get her head to the southward. The heavy seas causing the vessel to roll and strain very much and to make water. At 11-30 P.M. with great difficulty her head was brought round to the wind, as there was no room to run and no light being visible from the tug. At midnight heavy seas washing on board fore and aft damaging the paddle boxes, and a large quantity of water rushing into the stokehole put out some of the fires. At 12-30 A.M. on the 22nd the weather increased in severity, the vessel steering S.E. and making leeway; the master fearing the heavy seas abeam would sweep the decks, ordered the engines ahead half speed to bring her bow to the wind, heading S. E., which had the desired effect, but the force of the wind threw her off; the engine-room pumps were choked with ashes, and the sea breaking over all. At 2 A.M. the crew were called to bale the water out with buckets but they got partially disorganized, and appeared to have entertained the idea that the steamer was going down, and refused to do anything notwithstanding that the master had tried to inspire confidence. This state of things continued till the blue light from the Eastern Channel light-ship was seen, when the crew appearing willing to assist, the master took a cast of the lead; the water was found to be deepening to 8 fathoms; after this time the light was not seen any more. At daylight the gale increased in force, with heavy mountainous seas breaking all round and over the vessel, and breaking adrift both paddle-boxes and the starboard wheel, the bridge lifted up, and the steamer making no headway but drifting to the westward with her head to the S.E., the engines going at half speed. At 10 A.M. the gale was at its maximum the water rising in the holds, and a large quantity rushing into the stokehole put out nearly all the fires; the master ordered the engines ahead slow to bring her before the wind in order to get the pumps to work faster, but soon afterwards matters became serious, the steamer was drifting into shoal water and the sea rapidly increasing in strength, the crew put the vessel's head round to seaward at all risks in hopes that the gale might abate. At noon, storm the same, miles of mountainous foaming sea everywhere. At 1-30 P.M. the wind moderated but the sea was worse than ever, and the master expected her to founder soon. At 2 P.M. sighted the South Channel buoy, when the master made an Easterly course for

the Eastern Channel light-ship. At 5 P.M. the *Alexandra* was in the Eastern Channel, and when in 9 fathoms she could not see the light-ship (although there was a ship and a brig to the South), so the master steered to the northward and found the steamer *City of Agra* heading to the southward; the *Alexandra* showed only her red light, the green light having been washed overboard the night previous; the *City of Agra* in passing enquired what the bearing of the Eastern Channel light-ship was, when the master of the *Alexandra* replied that as he had not seen it he was proceeding up the channel on a N.N.W. course; soon afterwards, the Intermediate light-ship not having been seen, soundings were taken on the Middle ground and 4 fathoms water obtained, when the tug was hauled across to the eastward, the crew pumping till midnight. At 3 A.M. on the 23rd the chief engineer reported that all the floats and radius rods were gone on port wheel, when the master anchored the tug N.E. of the Long Sands light-ship. After waiting for 4 hours it was discovered that the water was over the plates in the engine-room, when the pumps were at once set on, and after securing the floats, &c., with chain lashings she proceeded up the river under easy steam. On the morning of the 26th September, a Marine Surveyor, accompanied by the Engineer Surveyor in the employ of the India General Steam Navigation Company, proceeded on board the steamer *Alexandra*, lying moored to a swinging buoy off Fort point, for the purpose of examining the damage sustained by her in the cyclone at the Sandheads on the night of the 21st and during the day of the 22nd September; the tug was underweigh, and exposed to the whole force of the storm during that period. After a careful survey they reported that on the *starboard* side of the deck the angle iron underneath the stringer plate of the forecastle deck was broken from the sides 8′ and the deck started, to be renewed, the stringer plate rivetted on again and the deck secured; the iron bollard broken in halves on forecastle head, a new casting to be made and secured; iron stanchions for rail on forecastle broken at the foot, to be rivetted on afresh; sockets for fish and cat davits on forecastle broken, new sockets to be cast and fitted; sockets of boats' after davits and clamps on rail loosened and broken, new castings to be made and fitted; rails on bulwarks from the gangway aft split and broken, new teak rails 36′ × 7″ × 3″ to be fitted; rails from the fore part of the paddle-box to the port in bulwark split and broken, new rails 14′ × 7″ × 3″ to be fitted; moulding on outside of bulwarks rail from forecastle to 15′ abaft washed off, new moulding to be fitted; the forward sponson beam of the paddle-box started from the side at the fore end and badly sprung 29′ × 15″ × 10″, to be renewed and fitted with teak; angle irons on top of sponson beam at both ends badly twisted and broken at their ends, to be renewed; the deck on fore part of sponson beams washed away with two cook-houses and lascars' water closet, new deck to be laid and new cook-houses built, also water closet; the sides and top of paddle-boxes washed away, to be refitted with sheet iron; 9 floats of paddle lost and broken 8′ × 2′ and 6″ × 3″ with bolts and fish plates, as well as 9 tilting cranks and 2 paddle brackets to be renewed and fitted; one feathering eccentric and stud complete with pins lost, to be renewed and fitted; 3 paddle arms and 6 diagonal paddle stays broken, to be renewed and fitted; 9 radius rods complete with bushes broken and lost, to be renewed and fitted; after sponson and spring beam started and loosened, to be strengthened by an iron plate secured to the inner part 9″ × $\frac{3}{8}$″ running the whole length of beams. On the *port* side of deck two stanchions for rail round the forecastle lost overboard, to be replaced with new; sockets for fish and cat davits on forecastle broken, new sockets to be cast and fitted; wooden rail of bulwarks broken and split from the fore part of paddle-box to the forecastle, new rail 45′ × 7″ × 3″ to be fitted; an iron coaling port in bulwarks torn and broken, a new port 4′ × 3$\frac{1}{4}$″ × $\frac{1}{4}$″ to be fitted; moulding round the inner part of the paddle-box broken and partly lost, to be renewed; sockets of boats' after davits and clamps

on rail loosened and broken, new castings to be made and fitted; rails on bulwarks from the gangway aft split and broken, new teak rails 36′ × 7″ × 3″ to be fitted; the whole of the angle irons on top of the beams of the paddle-box torn off and broken, to be renewed; the sides and top of paddle-box washed away, to be replaced with sheet iron; the deck on fore part of sponson, the officers' cabin, and bath-room washed away, to be relaid and new cabin made; side spring beam sprung and broken, to be replaced with a new one and a new plate fitted the whole length of the beams on the inside 9″ × ⅜″; the forward sponson beam split at the forward end and started from the sides, to be replaced with a new one; 9 floats 8′ × 2½′ and 6″ × 3″ with bolts and fish plates, as well as 9 tilting cranks and 2 paddle brackets lost and broken, to be renewed and fitted; one complete feathering eccentric and stud lost, to be renewed and fitted; 3 paddle arms and 6 diagonal paddle stays lost and broken, to be renewed and fitted; 9 radius rods complete with bushes lost and broken, to be renewed and fitted; the skylight of the engineer's cabin smashed, to be renewed; two 15″ coir water laid hawsers cut adrift for the safety of the vessel after having been slipped or parted from the ship *Viscount*, new hawsers to be supplied; two 4½″ wire pendents of 15 fathoms each attached to the hawsers lost, new ones to be supplied; a double set of awnings blown away and awning stanchions twisted and bent, new awnings to be fitted and stanchions straightened. The hull of the vessel was badly chafed in several places by floating wreckage, and the paint much worn off her bottom by the action of the heavy seas. The Surveyors recommended that the steamer be placed in dry dock for an examination of the bottom. Value of damage to the *Alexandra*, ₹15,500. No loss of life.

289. The British iron screw steamer BOOLDANA [of Glasgow, 2,133 tons register, official number 82316], from Calcutta to Bombay *viâ* coast ports, with a general cargo and 25 passengers on board. The steamer left No. 5 Calcutta moorings early on the morning of the 19th September, bound for Bombay, calling at intermediate ports, and on the morning of the 21st arrived at False Point harbour, and whilst lying at anchor at that port she encountered an extremely violent cyclone accompanied by a heavy storm wave. The following was an extract from the report of the master of the *Booldana*:—September 21st, 4 P.M., there was a heavy swell from the S.E. with fresh breeze at N.E. the aneroid having fallen to 29·91. A little later on, the wind and sea increasing, the steamer began rolling heavily and dragging towards the spit; the master weighed and shifted berth to the North, anchoring in 5 fathoms with both anchors down, with 70 fathoms of chain on the port anchor and 45 fathoms on the starboard. In that position the vessel was exposed to the S.E. sea, and at times rolled excessively. At dusk the weather looked very gloomy and threatening and the barometer falling; as the flood-tide slackened the steamer headed more to the northward, thus causing her to roll very much, whereupon the master hoisted the forestaysail in order to keep her head to the eastward and thereby head the sea. About 8-30 P.M., barometer 29·88, the staysail was taken down as the vessel was swinging to the ebb-tide and rolling violently; everything on deck broke adrift. Thereupon the master altered the steamer's berth and brought her to an anchor in another position in the Inner anchorage with the object of avoiding the heavy rolling. It was impossible under the circumstances to cat the anchors with safety, so they were kept hanging under the bows clear of the bottom. At 10 o'clock that night the barometer 29·83 was slowly going down, the vessel was riding by the port anchor in 23′ with 30 fathoms of cable veered out, the spit off Reddie point bearing S.E. ½ E., the water was smooth, and she was well sheltered from the heavy sea. At midnight the barometer had fallen to 29·74. On the 22nd, at 1-15 A.M. she commenced to swing flood, when the master let go the starboard anchor, veered out 20 fathoms on it and 50 on the port. A quarter of an hour afterwards, the vessel heading N.E. and North and

the wind being a little on the starboard bow, the master sounded and got 17′ but both anchors were then holding. At that time the barque *Tewkesbury* was lying at anchor ahead of the *Booldana*, distant nearly two ships' lengths, and abeam the barque *Neustrie*, distant about 1½ ships' lengths, and astern of the *Neustrie* the barque *Colonel Fytche*. At 2 A.M. the barometer 29·64, the weather squally with rain. At 4 A.M. the wind increased rapidly in strength and squalls getting heavier. At 5 A.M. the barometer 29·46, falling rapidly, a strong gale with severe squalls came in from the S.E., accompanied with much rain and lightning, carrying away the bridge and after awnings, the standard and after compass; all the iron work of the upper bridge was damaged and destroyed, the jib and maintrysail torn out of the gaskets and blown to pieces, and also the tarpaulins blown off all the hatches. As daylight came in the master discovered the *Neustrie* had dragged her anchors and was close to on the port quarter, when the engines in consequence had to be moved as required to avoid a collision. Between 5-30 A.M. and 6-20 A.M. the barometer was below 29·80 which was the lowest reading, the gale blew with fearful force accompanied with heavy rain and lightning, rendering it impossible to see the nearest objects or move about the decks. The master supposed the storm was at its maximum, the aneroid had fallen to 29·80. In the last burst the wind hauled to the northward and round to the westward. At 6-30 A.M. the wind was nearly calm with clear sky overhead, and the weather a little fine. At that time it was discovered that the *Booldana* had dragged past the barque *Neustrie*, and to within a ship's length of the land between Bakúd and Jumbú creeks; the master sounded round the vessel and obtained bottom at 22′ and 25′. The crew on weighing the anchors found the port anchor had parted with 120 fathoms of cable. She proceeded full speed ahead, the wind from the westward being light, and just as the crew were going to unhook the cat and fish tackles from the anchor the wind came suddenly from the W.S.W., the engines were immediately stopped, and it blew with such fury that every one on deck was forced to hold on with both hands to prevent being carried away; the men were altogether in great difficulties, and it was impossible to let go the anchor, or to do any thing as the sea was breaking on board fore and aft. Shortly afterwards the wind increased in strength, when the *Booldana* took the ground a quarter of a mile N.W. of Hookeytolla in Dowdeswell island, the light-house bearing S 26° W., and the Refuge-house on Reddie point S 30° E. (Orissa coast). The steamer after having bumped twice, heeled over nearly on her beam ends, lying in that position for a time, and filling the saloon and main deck, when the mail boat and gig were carried away. She then gradually righted and lay over on her port side with a list of about 12°. As soon as it was possible to go on the forecastle head the starboard anchor was dropped, and the master on heaving the lead found 3′ amidships on port side, but increasing towards the ends. The master tried to get the vessel off by jettisoning a portion of the coals, but without success. On the 27th, the same Company's steamer *Goa* arrived at False Point harbour from Bombay, having experienced fine weather but rather unusual currents up the coast. Upon approaching Dowdeswell island its form was seen to be entirely altered, all the port-marks, including the flagstaff and the houses being washed away. After anchoring, the master of the *Goa*, received information that a cyclonic-storm wave of somewhat unusual severity had swept over the harbour, occasioning heavy damage to the shipping and also on shore. All the Europeans on Dowdeswell island were drowned, the beach strewn with dead bodies of coolies, deer and fishes; and the barque *Tewkesbury* with two anchors out had dragged them for a considerable distance. The *Goa* immediately left the harbour and arrived at Calcutta on the afternoon of the 28th, and within a very short time the sad intelligence of the disaster was intimated to the Agents who quickly des-

patched the tug *Cyclone* with coolies on board to assist in floating the *Booldana*: fruitless endeavours were made by the tugsteamer to tow her off. After transferring her cargo to the steamers *Nowshera* and *Nevassa*, and jettisoning in all 477 tons of coals, she floated off with the assistance of the *Cyclone* on the morning of the 4th October. She was aground for 12 days. The steamer arrived off town (Calcutta) on the 8th of that same month and on the following day was put into dry dock for examination. The vessel was not specially surveyed, but was examined by the Company's Surveyors and found to have sustained no serious injury. Value of damage to the steamer *Booldana*, ₹7,500; cargo, ₹1,200. The crew 87 men and 25 passengers; two lives lost. One first class, and one deck passenger both died from injuries accidentally received. (It was reported that the Agents of the steam-ship *Booldana* did not wish for an investigation to be held under the Indian Merchant Shipping Act V, of 1883, as there were no features in the case to be elicited. It was inferred that every precaution was taken to avoid the casualty as it was due to stress of weather.)

290. The British iron barque CALCUTTA [of Dundee, 984 tons register, official number 29273], from Buenos Ayres to Calcutta, in ballast. The master stated that the barque left Buenos Ayres roads on the 4th August bound for Calcutta, and with the exception of five days lost at the Equator had a fine run until latitude 17° N., longitude 89° E., was reached on the 21st September, when dirty weather set in, the wind unsteady at first, then steady at N.N.W., gradually veering to S. by E. with tremendous seas running from all directions; the vessel was put on the port tack under mizen and foretopmast staysails. At noon on the 22nd, her position by observation was latitude 19° 28′ N., longitude 90° 15′ E.; the master set the course N. W. ¾ N., to steer for the Eastern Channel light-ship, which was then distant about 150 miles. He stated that he also drew a parallel line on his chart from the Pilots' Ridge light-ship, and another from the Mutla light-vessel, cutting the line off 19°28′ N. latitude. He did this because he wanted to make sure whether the chronometers were correct, if not he would pick up the vessel's position by aid of the soundings. At noon the patent log was set, and as usual the hand log was regularly hove. At midnight the reading of the patent log showed 110 miles, which corresponded with the hand log. The master then put the ship under easy sail—the lower topsails and foresail—intending if possible to make the light-ship before the lights were extinguished. A cast of the lead was taken at 10 P.M., at midnight, and at 2 A.M. the next morning, but no bottom found with 50 fathoms line and patent sounding machine. At 4 A.M. on the 23rd, sounded and got bottom at 37 fathoms, mud, after which the lead was kept going regularly every half hour one cast gave 24 fathoms, mud, and the next 24 fathoms, mud with fine sand, only perceptible when rubbed in the hand. From those soundings it was concluded by the master that the vessel was to the southward of the Pilots' station, and considered it safer to keep on a little to the N.W. for the purpose of finding whether she went on the mixed soundings. This the master then did, and went on a sort of greenish mud and sand, shells and pebble with 18 and 16 fathoms, whereupon the master wore the barque round to the East going easy, and the lead being hove constantly. At 8-15 A.M., made out a steamer, name not known, on the lee beam, and an hour afterwards, being in 7 fathoms, sighted a red and white buoy to leeward; the soundings obtained showed bottom to have the appearance of a white glistening sand, which the master took to be the sand referred to in Heckford's Sailing Directory as resembling steel filings, South of Saugor island. The master stated that when he sighted the buoy and saw no appearance of the light-ship, he concluded that the light-vessel had driven from her position in the cyclone; he considered the soundings showed that the vessel was to the northward of the South Channel buoy, for the reason that were no buoys shown on

sheet IV of the Admiralty chart of the Bay of Bengal. At that time the vessel was heading East to try and pick up the Pilot brig, when the steamer referred to proceeded towards the *Calcutta* and the master asked what was her longitude, whereupon she replied N. by W. of the Westerly or Fairway channel. But the master's idea was confirmed that the light-ship was gone and the pilots transferred to the Gaspar light-vessel. The *Calcutta* was then kept away, at the same time heaving the lead continually, the soundings varying from 8 to 6 fathoms; she proceeded under the same sail with sharp look-out kept for buoys, &c. About 11 A.M. a light-ship was discernible ahead and the Pilot brig away to the eastward, when the helm was ordered to be put down to stand across, and the yards were braced up on the starboard tack. The first officer, who was attending to the lead, then reported to the master that the vessel was shoaling her water; the helm was immediately put hard up and all the after canvas taken off, and the main yards squared in. A cast of the lead at that time gave 3 fathoms, and just before the master got her head off to the westward, the *Calcutta* took the ground on the tail of the Long Sands, the Upper Gaspar light-ship bearing E. ½ N., and the LongSands light-ship N. ½ W., entrance to the Hooghly river. The master deemed it imprudent to let go the anchor for fear of the barque getting on top of it; he instantly clewed up all the sails and ran a stream anchor out on the starboard quarter with a 7″ hawser, the bight being fast at the port quarter and the end forward through the pipe to the capstan. On the flood-tide having made she floated and begun to cant, when the quarter stop was let go and the vessel was heading round nicely when the warp unfortunately parted; the port anchor was then dropped to keep her from driving farther on the shoal. At night high-water the barque got underweigh and stood out into 5½ fathoms, and was afterwards brought up to await daylight, but in swinging to the tide the *Calcutta* again took the ground and commenced bumping. Shortly afterwards she was found to be making water, but the master could not state the rate, as the crew were all so much taken up with getting the vessel off that there was no regular spell either at, or away from, the pumps. In getting off, the master had to slip a bower anchor with 30 fathoms of chain owing to the barque being too close to the shoal to be able to heave it up in time. The *Calcutta* ultimately worked out into 7 and 8 fathoms water in the Western channel, and the master brought her up to await a pilot and tug. On the 25th the steamer *Pilot* which was on her way from Balasore, finding that the barque was flying signals "require immediate assistance," "steam-tug" and "pilot" steamed towards her; the tug master then boarded her, and it was discovered that she was making water at the rate of 2″ or 3″ an hour. The passengers were immediately set to work the pumps, and during the night she was pumped dry, and kept so with short spells at the pumps. On the following morning she was taken in tow, arriving at town (Calcutta) on the afternoon of the 27th, and the next day was placed in the Commercial dry dock, Howrah. The Surveyor to Lloyds' Agents assisted by a Marine Surveyor examined the barque from time to time, *viz.*, between the 29th September and the 10th November. They reported that the vessel whilst on a passage to Calcutta in ballast, grounded on the Long Sands and bumped heavily, but was got off and towed up to town in a leaky state, and was immediately placed in dock with the ballast on board, and surveyed. After a careful examination it was found that the paint on the bottom and keel was badly chafed and rubbed off in many places on both sides, and several of the butts under the bottom weeping. On the starboard side, about 10′ abaft the mainmast, a plate of the 'strake of plating above the garboard strake was badly dented and broken between the floors, the break running across the middle of the plate was 10″ × ¾″; several rivets were loose and leaking in the garboard strake, and the frames of the strake above it from the sternpost forward to about 8′ were leaking, and some of the rivets in

that part weeping; the 2nd gudgeon from the top on the sternpost was injured; and the lower pintles slack in the gudgeons, and the steering gear much shaken and damaged, and the stud bolts of the packing bush on poop deck injured; the iron fluting whelps of the windlass on both sides were broken, and the decks leaking under the windlass and round the windlass bitts; the inside flange of the port hawsepipe was broken; the decks were leaking badly from forward of the main hatchway to abaft the mainmast, and in several other places. The barque having had a large quantity of water in the hold after grounding, the ballast which consisted of mud became mixed with the water and ran through the seams of the floor ceiling and filled the spaces between the floors solid with mud from end to end of the hold, and as far as the ceiling extended, *viz.*, to the upper part of the bilges. When the loose ceiling was lifted and the mud removed from between the floors as far as possible, the cement was found between the floors broken and started from the plates in almost every space between the floors forward and abaft the middle part of the vessel where the bulk of the ballast was lying. It was recommended that the ballast should be discharged, which was done, when it was found that the cement was also broken and started from the plates in midships under the ballast. The Surveyors advised that the whole of the ceiling be removed from end to end of the hold, the mud taken out from between the frames, and the hold washed clean with the hose, and the cement cut out where broken and loose; the rivets tested and all slack rivets removed and replaced with sound ones, and the places where the cement was cut out to be re-cemented; the floor plates and angles under the ceiling to be thoroughly scaled and painted or cement washed, and the sound portion of the ceiling relaid as before, and the damaged or broken portion replaced with new wood; the broken plate in the strake of plating above the garboard strake, to be taken out and replaced with a sound plate 6′ long and well rivetted as before; the broken plate being an inside one, two plates of the strake above it had to be removed to get the broken plate out, and were again rivetted in their places; the laps of the garboard strakes and the plates above it where leaking near the sternpost on each side, to be chipped and caulked, and the weeping rivets caulked as they could not be got out, being so far aft in the run; the bottom plates where chafed and the weeping butts to be scraped clean; and the butts puttied and the bottom well coated with an extra coat of paint and with patent composition as before; the rudder to be lifted and a new gudgeon forged and rivetted to the sternpost; an extra socket made for the lower pintle fastened to the keel and the pintles chipped and re-bushed; also new brass bushes to be fitted in the arms of the screw steering gear, the bolts of the deck packing bush to be renewed, and the whole of the steering gear put in working order; the windlass to be unshipped for examination of the spindle and bushes, and the broken fluting whelps and bearing taken off for examination of the body. This was done, and the windlass body, spindle and bushes found to be sound and uninjured; the broken whelps to be replaced with new cast iron whelps and teakwood lining between them; the broken inside flange of the port hawsepipe to be removed and replaced with a new flange; the whole of the chain cable to be taken out of the lockers and ranged on deck for inspection and the chain locker repaired. On the 13th November, the Surveyors again visited the vessel for the purpose of finally examining whether the repairs were satisfactorily carried out. They reported that after carefully surveying her, found that the whole of the repairs recommended had been well and faithfully executed and the anchors, chain cable, towing hawser and lines replaced with new. In addition to the repairs mentioned above the following repairs to the rigging and spars were done:— new mizen rigging and lanyards, new bowsprit shrouds, and goose neck of mizen gaff renewed and new iron band for mizen stay. The Surveyors considered

that the *Calcutta* was tight, staunch and strong, and fit to carry a dry and perishable cargo to any part of the globe, and was in their opinion a first class insurance risk. Value of damage to the barque, R18,000. No cargo on board. No loss of life. (The master accounted for the accident through being set to the westward of the spit dividing the two channels by an unusually heavy westerly current notwithstanding that the lead was kept going all the time ; the soundings in both channels being similar, he failed to detect the error until too late, and in the hazy intervals mistook the Lower Gaspar light-ship for the Pilot brig. The Port Officer recorded that the grounding of the barque *Calcutta* was owing to the master having run up the Western Channel of the Hooghly river without a pilot, but the circumstances of the case did not appear to call for an investigation under the Indian Merchant Shipping Act V, of 1883, nor did the Agents wish to have one owing to the vessel not having sustained serious damage.)

291. The French iron screw steamer LOIRE INFERIEURE [of Nantes, 533 tons register, official number 2998], from Calcutta to Haipong, with water ballast. On the 23rd September, the steamer under charge of a pilot was proceeding down the Hooghly river ; at 11 A.M. the vessel on crossing over from Kaffray point to Pir Serang would not answer her helm, which had been put hard-a-starboard, whereupon the pilot rang the telegraph full speed astern ; but the engines not being reversed in time she struck the bank at Pir Serang, where she remained aground for about a quarter of an hour. The pilot then backed her off and proceeded safely to sea. He accounted for the accident to the vessel not answering her helm in consequence of the eddy-tide and to the engines not being sooner reversed. No damage to the steamer. No cargo on board. No loss of life. (The casualty was unavoidable.)

292. The British iron screw steamer SHAHJEHAN [of Liverpool, 1,036 tons register, official number 78839], from Calcutta to Madras, with a general cargo. On the 24th September, the *Shahjehan* was lying moored off Chandpál ghât moorings, Hooghly river, ready for proceeding to sea. At 6 P.M., it being slack water, the vessel steamed ahead slowly in charge of an assistant harbour master, but when half out of her berth in Engine-house moorings, with the helm hard-a-starboard, the engines were stopped, and when just three-quarters out he put the telegraph on half speed astern, and immediately afterwards full speed astern, but the engine unfortunately refused. Thereupon the assistant harbour master hailed after the second officer to hold on to the stern hawser, which had been kept out on being informed by the chief engineer that the engines were rather slow to move astern first going off. Instead of holding on to the stern hawser, which would have stopped the little headway she had on, the crew of No. 8 Hawser boat let it go from the buoy, and the *Shahjehan* forging ahead between the steamers *Arcot* and *Madura,* both lying at No. 1, Calcutta moorings, came into collision with them. The *Shahjehan* first struck the *Arcot,* thereby carrying away 20′ of her port quarter rails and destroying the awnings and stanchions, after which she struck the *Madura* and stove in some planks on the starboard side and destroyed the quarter boat which was hanging in the davits. The assistant harbour master stated that the engines started astern after the casualty, but there must have elapsed at least three minutes from the time the telegraph was put to go astern and until the engines moved. Slight damage to the *Shahjehan.* No loss of cargo. No loss of life. (It was reported that, from enquiries instituted, the crew of No. 8 Hawser boat emphatically asserted that the order to cast off the stern hawser was three times distinctly repeated both by the assistant harbour master and the second officer of the *Shahjehan* who was aft, and it was presumable that the order might have been misunderstood by the boat's crew. The accident was mainly caused by the engines not having been moved in time when ordered. The Deputy Conservator recorded that there was no evidence avail-

able from the British India Company's steamers *Arcot* and *Madura*. The master of the *Shahjehan* stated that the assistant harbour master's report was perfectly correct in all detail, and that the casualty, which was a trifling one, was caused by the crew of the Hawser boat having misunderstood the orders; moreover the master was perfectly satisfied with the way the assistant harbour master handled the vessel, and the Deputy Conservator considered that no blame could be attached to the assistant harbour master.)

293. The British iron screw steamer ARCOT [of Glasgow, 1,150 tons register, official number 63809], from Bombay to Calcutta, with a general cargo. On the 24th September, the steamer was lying moored head and stern, at No. 1, Calcutta moorings, Hooghly river, ready to load her export cargo. At 1 P.M. the steamer *Shahjehan* being ready to have the Engine-house moorings, her engines were ordered slow ahead by the assistant harbour master, and were kept moving till she was nearly half out of the moorings. Shortly afterwards the engines were ordered half-speed astern, but they not starting, the assistant harbour master shouted to the second officer, who was aft, to hold on to the line which was made fast on board when the crew of the Hawser boat let go the end of the line which was fastened to the buoy, which caused the *Shahjehan* to forge slowly ahead till brought up near by the steamer *Arcot*, when the latter vessel was fouled by the *Shahjehan* whereby the *Arcot* had 20′ of her port quarter rails, the awnings and stanchions destroyed. Value of damage to the *Arcot* not reported. No loss of cargo. No loss of life.

294. The British iron screw steamer MADURA [of Glasgow, 1,266 tons register, official number 68080], from Calcutta to Rangoon, Maulmain and The Straits, with a general cargo. On the 24th September, the steamer was lying moored head and stern, at No. 1 Calcutta moorings, Hooghly river, loading her export cargo. At 1 P.M., the steamer *Shahjehan* being ready to leave the Engine-house moorings, her engines were ordered slow ahead by the assistant harbour master, and were kept moving till she was nearly half front of the moorings. Thereupon the engines were put half speed astern, but they not starting, the assistant harbour master shouted to the second officer, who was aft, to hold on to the line which was made fast on board, when the end of the line which was fastened to the buoy was cast off by the crew of the Hawser boat, and the *Shahjehan* forged slowly ahead till brought up by the steamer *Madura* which vessel was fouled by the *Shahjehan*, whereby 6 planks on the starboard quarter were smashed in and the gig severely strained; 1 saloon port bent and 4 fair lead plates for saloon ports tricing chains torn out of rail and lost overboard. Value of damage to the *Madura*, ₹200. No loss of cargo. No loss of life.

295. The American wooden ship GOVERNOR WILMOT [of St John's, New Brunswick, 1,611 tons register, official number 66885], from Singapore to Calcutta in sand ballast. On the 25th September, the ship, under charge of a pilot and in tow of the steam-tug *Challenge*, proceeded up the Hooghly river, and when at Garden reach an assistant harbour master took charge. At 4 P.M., after passing the steam-ship *Bucephalus*, lying at anchor off No. 8 Garden reach moorings, being closer to the red buoys than the moorings on the starboard side, the assistant harbour master sighted the flat *Chubwa*, in tow of the steamer *Bombay* ahead apparently backing astern, whereupon the master of the *Challenge* hailed the assistant harbour master, asking to know what side of the channel he should take, when he was told to keep towards the black buoys, as the *Chubwa* and the *Bombay* were backing astern, and there was no room left to the westward; after the tug had passed the flat with the ship all clear, and when opposite the India General Steam Navigation Company's moorings, the master of the steamer *Bombay* deliberately steamed ahead, and the *Chubwa* came into collision with the *Governor Wilmot*, thereby striking the latter vessel on the port bow. The anchor of the *Governor*

Wilmot fouled the *Chubwa's* awning gear, and in swinging out, slightly damaged one of her own planks. The harbour master reported that the steamer *Bucephalus* was anchored off No. 8 Garden reach moorings, waiting for the steamer *Angerton* to haul out before proceeding in, when the ship *Governor Wilmot* was towed up the proper channel along the southern bank of the river, and after passing the *Bucephalus* sighted the Inland steamer *Bombay*, with two flats in tow, across the steamer heading for the southern bank but backing at the time, and in consequence of which the master of the *Challenge* held on her course up the authorised channel under the impression that there was ample room to pass, as it appeared there would have been had the master of the *Bombay* not changed his tactics and gone ahead, under which circumstance the collision occurred. From the report the harbour master was of opinion that there was not room or time to pass to the northward of the flats close to the Bishops' College sand, and that the assistant harbour master in charge of the ship *Governor Wilmot* acted to the best of his judgment. The damage to the *Governor Wilmot* was trivial, and had been repaired on board by the ship's carpenter. No cargo on board. No loss of life.

296. The British iron flat CHUBWA [of Calcutta, 200 tons register, no official number], from Calcutta to Narainganj, with a general cargo. On the 25th September, the flat *Chubwa*, along with another flat, were being towed down the Hooghly river by the steamer *Bombay*; at 4 P.M. when opposite the India General Steam Navigation Company's moorings, Garden reach, they were across the stream heading for the southern bank but backing at the time, in consequence of which the steam-tug *Challenge,* with the ship *Governor Wilmot* in tow, held on her course up the authorized channel under the impression that there was ample room to pass, but the master of the *Bombay* changed his tactics and proceeded ahead, when the *Chubwa* fouled the ship *Governor Wilmot.* The *Chubwa* had three stanchions broken and two sprung, the stock of the starboard anchor broken, and a portion of the forward roof slightly damaged. Value of damage to the flat, R100. No loss of cargo. No loss of life.

297. The British composite brig COLEROON [846 tons register, no official number, belonging to the Bengal Government], was employed on Pilot duties at the Sandheads. At 4-45 A.M. on the 25th September, the brig commenced heaving short, being then at anchor in $9\frac{3}{4}$ fathoms of water, with the Eastern Channel light-ship bearing E. $\frac{1}{2}$ N., distant about 3 miles. The master stated that his object in doing so was to be in readiness to heave the anchor a trip if the Pilot boat after supplying the inward bound ship *Minnyhive* with a pilot was unable to fetch the brig on her return. At that time the *Coleroon* was riding to the flood-tide and there was a light swell from the southward; the master pawled the windlass when there were 12 fathoms of chain to the water. It was subsequently noticed that there were sudden jerks on the windlass indicating how the anchor seemed to grip, which rather surprised the master considering that there was only a gentle breeze and the sea being quite smooth. At 5-38 A.M. it was found necessary, as the master had anticipated, to trip the anchor in order to pick the Pilot boat up, but just before it was aweigh, however, the chain gave a jerk, indicating that something had parted, and then came in quite slack. On heaving in all the chain it was discovered that the bending shackle had parted, a large piece being out of the crown. No damage to the brig. The anchor and chain were not recovered, but they had been replaced at a cost of R827. The value of the lost article was R322. No loss of life.

298. The British iron paddle steamer SHILLONG [of Calcutta, 473 tons register, no official number], was employed on passenger and goods traffic on Inland rivers. On the 29th September, the steamer was proceeding up the Hooghly river from Assam, with a cargo of tea and jute. At 3 P.M. on that day

the *Shillong* was steaming with four flats in tow through the ships' opening of the Hooghly bridge against the danger signals, and came into collision with the pontoon of the bridge, thereby doing some damage to the bridge. No damage to the steamer or the flats. Value of damage to the Hooghly bridge, ₹100. No loss of cargo. No loss of life. (The master of the steamer was brought to trial before the Presidency Magistrate, Northern Division, for having committed an offence under the Port Trust Rules whereby the vessel proceeded through the bridge-opening against the danger signals and damaged the bridge. The accused pleaded not guilty, but the charge being proved, he was fined ₹100. The decision of the Magistrate in this case was appealed to the High Court, but its result was not known.)

OCTOBER.

299. The Italian iron screw steamer ABISSINIA [of Genoa, 1,852 tons register, official number not reported], from Calcutta to Genoa, with a general cargo and 6 passengers on board. On the morning of the 1st October when off Sokotra island, (Arabian sea), in latitude 13° 03′ N., longitude 52° 23′ E., smoke was seen issuing from the hold, and after a short time it was discovered that a quantity of cocoanut fibre had caught fire; this was extinguished, but soon afterwards it was found that more of the fibre had ignited; the fire was eventually put out the next day. Several of the crew, who were working in the hold, afterwards appeared from below nearly suffocated, and were brought round by artificial respiration. She put into Aden for coaling and repairs. Value of damage to the steamer and cargo not reported. No loss of life. (The casualty was caused by spontaneous combustion.)

300. The British iron ship ROYAL EDWARD [of Liverpool, 1,508 tons register, official number 49864], from Calcutta to Sharpness, with a cargo of linseed. On the 3rd October the ship was lying at Garden reach, Hooghly river, about three ships' lengths below the two last buoys in the reach ready to proceed to sea in tow of the steam-tug *Retriever*. On the morning of the 4th the pilot, on heaving in the chain to get underweigh, the anchor was found to have gone, the ring apparently having broken. The anchor was subsequently recovered at a cost of ₹146. No damage to the ship or cargo. No loss of life.

301. The British iron ship BLAIR DRUMMOND [of Glasgow, 1,450 tons register, official number 71687], from Calcutta to London, with a cargo of grain and seeds. On the 6th October the ship in charge of a pilot, and in tow of the tug steamer *Challenge*, was proceeding down the Hooghly river; at 7-35 A.M., whilst rounding Melancholy point at half speed, the ship took a heavy sheer to starboard owing to a strong eddy-tide; the helm was and had been previously put hard-a-starboard, but it had no effect on the vessel, which kept her sheer, and having brought the *Challenge* on the port beam both hawsers parted. The *Blair Drummond* still running for Melancholy sands, the pilot dropped the port anchor and checked her by running out 45 fathoms, but the chain parted as the ship slued to the tide in 9 fathoms of water, a little on the sand side of the fairway and midway between Melancholy point and the Crossing mark, whereupon the starboard anchor was let go and the vessel brought up without any damage. On the flood-tide making she took in tow again and proceeded in safety to Fisherman's point, where she was anchored for the night. The anchor and chain lost by the *Blair Drummond* were not replaced at Calcutta, nor were they recovered. The value of the lost articles was ₹1,630. No damage to the ship. No loss of cargo. No loss of life. (The casualty was unavoidable).

302. The British Indian muchwa BHOWANEE [of Bombay, 6 tons register, official number 1314, age 55 years], from Panvel to Bombay, with a cargo of

grass. On the 6th October, whilst proceeding to anchor off Boree bandar, Bombay harbour, the breeze freshened very fast, and just afterwards a heavy sea struck the muchwa and swamped her. All the grass was floated away and she was left dry at low-water; the crew promptly set to work in bailing the water out, and on the flood making she floated off. Little or no damage to the muchwa; cargo all lost, value ₹170. No loss of life.

303. The British iron screw steamer CLAN MACINTOSH [of Glasgow, 2,636 tons register, official number 87690], from Calcutta to London, with a general cargo. On the 7th October the steamer was riding at anchor under charge of a pilot abreast the Garden gate, Garden reach, Hooghly river, preparatory to proceeding to sea, when at 7-45 A.M. the laden flat *Jellinghee*, with a small steam-launch alongside in charge of a native, dropped down; her rudder fouled the *Clan Macintosh's* chain cable; as soon as she got clear the flat let go her anchor, and brought up on the steamer's starboard quarter, but would not move although the pilot hailed the serang of the *Jellinghee* to do so several times; this, of course, was right in the steamer's way for turning, and the *Clan Macintosh* nearly lost a portion of that day. The accident might have resulted in a very serious disaster considering the great draught of the steamer, and the flat being heavily laden and being under the charge of a native during strong tides at that time of the year. No damage to the steamer or cargo. No loss of life. (The collision was caused through carelessness on the part of the serang of the flat *Jellinghee,* who, it was reported, left the service of the Company he served.)

304. The British iron flat JELLINGHEE [of Calcutta, 413 tons register, no official number], from Calcutta to Narainganj, with a general cargo. On the 7th October the flat, in tow of a small steam-launch and in charge of a serang, in dropping down the Hooghly river, came into collision, owing to the carelessness of the serang, with the steamer *Clan Macintosh* lying at anchor abreast the Garden gate, Garden reach, at 7-45 A.M., the *Jellinghee's* rudder striking the steamer's chain cable, but fortunately doing no damage to the *Clan Macintosh.* No damage to the *Jellinghee* or the cargo. No loss of life.

305. The British iron screw steamer GOVERNOR [of Liverpool, 1,717 tons register, official number 84098], from Calcutta to London, with a general cargo. On the 8th October, at 8-30 A.M., whilst getting underweigh from Garden Reach, preparatory to proceeding down the Hooghly river under charge of a pilot during the last of the ebb-tide, the steam steering gear of the windlass was carried away, thereby necessitating her putting back to moorings. The steamer after having been surveyed and repaired resumed her voyage on the 11th of that same month. Value of damage to the *Governor,* ₹7,100. Value of damage to cargo, ₹2,000. No loss of life.

306. The British iron ship AIRLIE [of Dundee, 1,500 tons register, official number 72545], from Calcutta to Dundee, with a general cargo. On the 8th October, the ship in charge of a pilot, and in tow of the steam-tug *Electric,* was proceeding down the Hooghly river, and at 4 P.M. she anchored at Kalpi for the night in 9 fathoms of water, Kalpi pagoda bearing S.E. ½ E., Kantabaria obelisk North, and Jigger kháli W. ½ S. Shortly afterwards the vessel took a slight sheer and began to drive, when the pilot let go the second anchor, and in heaving up the starboard chain discovered that the anchor had parted with only three links of chain. No damage to the ship, or cargo. The anchor and chain lost by the *Airlie* were not replaced at Calcutta, nor were they recovered. The value of the lost articles was ₹476. No loss of life.

307. The British iron barque GLANCE [of London, 881 tons register, official number 63529], from Calcutta to London, with a cargo of jute and seeds. On the 10th October, the barque under charge of a pilot, and in tow of the tug *Retriever,* was proceeding down the Hooghly river, and at 9 A.M., whilst at

Fisherman's point, the pilot eased down for the purpose of turning to wait for the tide, intending to anchor as low down as possible to avoid the eddy-tides. As the *Glance* was on the point of turning below the *Queen Anne* wreck buoy she took the ground. On the flood-tide making she floated off, and after being taken in tow again she proceeded to sea safely. She was aground for half an hour. No damage to the *Glance*. No loss of cargo. No loss of life. (The casualty being slight the pilot was warned to be more careful in future.)

308. The British iron screw steamer MAHRATTA [of Glasgow, 505 tons register, official number 53368], from Calcutta to Chittagong, with a general cargo and 86 passengers on board. On the 11th October at 11 A.M., the Juldia semaphore showing 6′ rise, the *Mahratta* got underweigh without a pilot and proceeded up the Kornafuli river (Chittagong coast), and as the mails were a day late, and the master wished to transfer the Hooghly river pilot to the *Calcutta,* he kept an anxious look-out, and on sighting the outgoing steamer proceeding down amongst the shipping the engines were eased soon after passing Gupta kháli and the mail-boat got ready for putting the pilot on board. The *Mahratta* was approaching the line of Native brigs when her master observed the *Calcutta* coming down in the opposite direction, and as the channel between the Native brigs and the first and second lowermost swinging buoys would necessarily be a narrow one, the *Mahratta* edged as far as possible over towards the eastern bank in order to give the *Calcutta* plenty of room, the engines were ordered to go *slow* and the boat to be lowered, and as the *Mahratta* was still approaching the *Calcutta* fast, the master was suprised to find the latter vessel under the influence of a starboard helm. Soon afterwards the master discovered that the *Calcutta* was just clearing the ship *Prince Edward,* and thought she would subsequently sheer into the western bank, where there was plenty of room; she however kept on under the same helm attempting to cross the *Mahratta's* bows. About three minutes before the accident the two vessels were quite close, and seeing that a collision was imminent the engines of the *Mahratta* were stopped and reversed full speed, but to no purpose. At 11-55 A.M. when 400 yards to the S.E. of Kumar kháli, the *Mahratta* fouled the *Calcutta*, striking her near the after gangway ladder on the starboard side, cutting her through the plating. After the accident the master of the *Calcutta* immediately let go his anchor and the *Mahratta* swung round, holding the wreck by her quarter. When it was reported that the *Calcutta* was sinking, the boats of the *Mahratta* were instantly lowered and took off the crew and passengers. The vessels were foul of each other till the *Calcutta,* about a quarter of an hour afterwards, was driven apart by the force of the tide and sank, when the master immediately slipped the *Mahratta's* anchor and 30 fathoms of cable and dropped her abreast the ship *Prince Edward.*. The *Mahratta* received serious damage to her bows, the stem was badly twisted and a plate at the 12′ mark broken, and her gig damaged and destroyed, the steamer however proceeded to Akyab with the mails and passengers. The master of the *Mahratta* had never passed an examination, nor received a certificate as a pilot for the Kornafuli river, and neither was he conversant with the Port Rules; yet on the face of all this he did not take a pilot as he considered himself competent to proceed with his vessel, the taking of a pilot being optional. He stated that he was not aware of any rule forbidding steamers to proceed up the river on the flood-tide; he never applied for a copy of the Port Rules, but studied the latest chart of the river (which was on board) in three sheets. He always found the Eastern channel the best for navigation, and for that reason he was keeping on the eastern side of the river, on this occasion going up as near as he could do to the Native brigs. The first officer, who was on the bow keeping a look-out, alleged that on the day in question the *Calcutta* was underweigh about 2 or 3 buoys above the ship *Prince Edward* when the *Mahratta* was passing the Gupta kháli crossing going up the western

side of the river, but heading off for the eastern bank. He did not hear the whistle from the *Calcutta* at any time, and the speed of the *Mahratta* from Gupta kháli crossing up to No. 10 mooring buoy was 5 knots, until within 4 or 5 minutes before the casualty occurred. In still water, going at slow, the speed of the vessel would be 3½ knots, and the tide on that day was running 3½ knots, and with the engines going slow in such a tide he considered that the *Mahratta* was under command. The chief engineer stated that on crossing the Juldia bar the order was to have steam ready at 10-50 A.M., and five minutes afterwards to stand by and proceed slow ahead; full speed at 10-57 A.M.; half speed at 11-45 A.M., and slow ahead 11-46 A.M At that time the chief engineer received instructions that the steamer would have to stop to tranship the Hooghly river pilot to the *Calcutta*, and gave orders for the engines to go *dead slow*, and at 11-50 A.M. the master ordered them to *be stopped* and put full speed astern, and whilst going full speed astern the accident took place. The third officer was on the bridge with the master on the morning of the 11th. He received an order from the master to slow down, the helm being a little to port when the *Mahratta* was 300 yards from the lower mooring buoy owing to the *Calcutta* being end on, in order to pass her on the port side. Before the order to slow down, the engines were going at full speed, and after proceeding for nearly 500 yards they were put slow, as the boat was ready for lowering, the crew being in it, and 15 or 20 minutes after this the order was to go full speed astern, and soon afterwards the collision happened. On the 12th of that same month, the Surveyor to the port examined the steamer *Mahratta*, and her stem was found to be badly twisted; the bowsprit and gear carried away; and the bow plates on the port side above the main deck torn quite out. The Surveyor considered that she could safely proceed on her voyage up to Akyab. Value of damage to the *Mahratta*, ₹4,995. No loss of cargo. No loss of life.

(*For an account of the Calcutta, see Wrecks No. 71.*)

309. The British Indian wooden ship ALLUMGHIER [of Calcutta, 901 tons register, official number 53516], from Linjah to Calcutta, with a cargo of salt. On the 12th October, the ship in charge of a pilot, and in tow of the tug *Defiance*, was proceeding up the Hooghly river, and at 6 P.M., was anchored at Budj Budj for the night, abreast the bazar near the S. E. bank. At 11-30 P.M., the vessel took a heavy sheer towards the N. W. bank, the helm was put hard-a-port, but before she recovered her sheer the chain parted at 35 fathoms, thus losing the anchor. No damage to the ship. The anchor and chain lost by the *Allumghier* were recovered at a cost of ₹256. No loss of cargo. No loss of life. (The cause of the accident was not reported.)

310. The British wooden barque YANWATH [of Arbroath, Scotland, 461 tons register, official number 18259], from Point de Galle to Newport, Monmouthshire, *viâ* Réunion, with a cargo of rice. On the 12th October, whilst proceeding out of Point de Galle harbour (Ceylon coast), she sprung a leak, exact position not known, and put back, when the whole of the cargo was discharged for survey and repairs. Value of damage to the barque and cargo not reported. The cause of the casualty was not stated. No loss of life. (No official report of the accident reached this Department, nor was any information received from the Marine Authorities at Point de Galle; the above details are from private sources.)

311. The British iron ship GARSTON [of Liverpool, 1,812 tons register, official number 87891], from Calcutta to Falmouth, with a general cargo. On the 14th October, the steamer in charge of a pilot and in tow of the steam-tug *Clive*, was proceeding down the Hooghly river. At noon, whilst crossing over from Melancholy point at low-water, the steamer's hawser parted, thereby necessitating the pilot to let go the ship's hawser, when gradually the *Garston* lay alongside the bank off the point. On the flood making she floated off, and after having passed hawsers again she was towed safely to sea. The vessel was aground

for half an hour. No damage to the ship or cargo. No loss of life. (The accident was unavoidable.)

312. The Norwegian wooden schooner VAERING [of Stavanger, 302 tons register, official number not reported], from Calcutta to Port Natal, with a cargo of rice, gunnies, &c. On the 15th October, the schooner in charge of a pilot was proceeding down the Hooghly river; at 9 A.M. when at Sankral reach, the pilot was trying to swing the vessel head down the river during half-ebb with a view to sail down, when her heel touched the bank below the Spit buoy. The vessel was on shore for five minutes, and on floating off it was discovered that the rudder was seriously disabled, thereby necessitating her putting back to moorings for repairs. The Agents reported that, at the time of applying for the Port Clearance, they stated in the pilot's order that the schooner was to proceed by *steam* and *not* sail, but unfortunately, owing to the tug steamer *Columbus*, which vessel had been engaged, had damaged her machinery at Mud point on her way up the river with the ship *Marpesia* in tow, and would not be up until two days later, hence the pilot took her down without steam with the permission of the master. On the morning of the 17th a Marine Surveyor assisted by a Norwegian ship-master and a Shipwright Surveyor proceeded on board the schooner, lying moored to the buoys off Hastings, for the purpose of surveying and reporting the damage sustained by grounding on the left bank of the river outside the boundary of the port. They reported that from information received from the master and officers of the schooner, it appeared that the *Vaering* left Garden reach, but just at Sankral, whilst in the act of dropping down the river outside the boundary of the port, her stern came in contact with the left bank of the river, disabling the rudder to such an extent as to compel the vessel to return to town for examination and repairs. After making a careful survey of the rudder from the outside, it was found that the same was badly broken from the after part at the water's edge for 2′ (starting upwards) to the underneath part of the upper pintle. This break was of such a serious nature that the rudder could not be repaired, but must be taken off and a new one made; the middle and lower pintles and the gudgeons being under water, it would be necessary to employ a diver in order to ascertain whether they had received any injury, as the severe blow which broke the rudder had very probably done damage to the sternpost under water also. They stated that in the event of the diver reporting that she had taken no hurt under water, they advised that a portion of the cargo be removed from aft to forward so as to raise the stern of the vessel and take out the wood-lock for unshipping the rudder which was then nearly 12″ under water. On the 20th the Port Commissioners' diver reported having carefully examined the heel, the rudder, and the sternpost as she lay in No. 1, Hastings' moorings, and found that the lower rudder brace had fallen off, the nut brace above the rudder pintle unshipped, two bolts of brace broken, a piece of the keel at the heel on the port side split and broken off, and the copper ragged about the heel where the brace was torn out. The report of the diver being of a very serious nature, the Surveyors recommended that a portion of the cargo be discharged and the vessel be placed in dry dock for farther examination. On the 28th the Surveyors again visited the schooner lying in the East India dry dock, Howrah, for the purpose of advising what repairs were actually needed to take the vessel to her destination as also to make her seaworthy. They reported that the *Vaering* was fairly seated on the blocks, the bottom of the dock being dry. After a careful examination of her bottom it was discovered that 7 sheets of metal, under the heel abaft the gripe of stern, were badly chafed and torn, the damaged sheets should be taken off and new metal put in their place; the seam of the garboard strake slightly weeping on both sides from stem to stern, the metal to be cut on the seam and the same well caulked, fitted,

and remetalled; the two lower braces of the rudder lost, broken and torn off the sternpost, new metal braces to be cut and fitted in place of the old, and the bolts wherever broken off to be driven out and a larger size bolt fitted. It would also be necessary to make the new brace longer so as to fasten the ends in the dead wood. A piece was broken and torn off the after end of the keel just underneath the dovetail place, would not weaken the keel in any way, and a small patch should be fitted neatly on; the rudder broken in half could not be repaired, but the old metal should be stripped off, a new teakwood rudder to be fitted on if pinewood was not procurable, and the new rudder to be metalled as before; the metal round the sternpost and in the run much wrinkled and chafed, the metal on the sternpost to be stripped and the hood ends to be caulked, also the metal on each side of the run where chafed to be taken off and caulked underneath and new metal put on; the oakum on the seams and butts above the metal very slack, four of the seams and butts above the metal to be caulked fore and aft. The Surveyors stated that when the above work was completed she would in their opinion be in as good a condition as she was previous to the grounding. They reported that on the 6th November they visited the schooner for the purpose of surveying her finally, and ascertaining whether the repairs and works had been executed and completed satisfactorily. They reported that everything as recommended had been done and finished in a proper manner. The Surveyors were of opinion that the *Vaering* was as good as she was before the accident, and pronounced her to be strong, staunch and seaworthy, and fit to carry a dry and perishable cargo to any part of the world. Value of damage to the schooner, ₹6,250; cargo ₹812. The schooner reshipped her cargo and proceeded to sea safely on the 16th November. No loss of life. (The casualty was an accident, and was apparently due to the pilot having attempted to sail the schooner down the river, although his orders stated that the vessel was to leave by steam; but, according to his account, the master of the *Vaering* requested him to proceed without the assistance of steam power, as a delay of two days would have been caused by having to wait for the tug *Columbus*.)

313. The Norwegian three-masted schooner KNUT ALFSSON [of Stavanger, 292 tons register, official number not reported], from Calcutta to Algoa Bay, with cargo of rice. On the 23rd October, the schooner under charge of a pilot proceeded down the Hooghly river. The vessel, it appeared, was to leave town in tow of steam, but there being no tugs available, she proceeded under sail. At 9-40 A.M., whilst crossing the Moyapur bar, the *Knut Alfsson* fouled the upper Hiraganj sand buoy and knocked it out of position; whereupon the pilot anchored the vessel, and with the assistance of the tow boat took the buoy ashore and made it fast to trees on shore. At 4 P.M. with the consent of the master, the pilot weighed anchor and proceeded down the river without steam, when she anchored for the night at Hooghly point. At 12-20 P.M. of the 24th she proceeded to sea safely in tow of the tug *Challenge*. No damage to the schooner or cargo. Value of damage to the buoy not reported. No loss of life. (The collision was accidental.)

314. The British Indian mahangiri LAXMIPRASAD [of Thána, 19 tons register, official number 4826, age 27 years], from Kalyán to Bombay, with a cargo of bricks. On the 23rd October at 7-30 P.M., the mahangiri ran upon an unknown rock near the small tower, about a mile to the south of Chendni bandar in Thána creek, Bombay harbour. She sprung a leak; the crew tried to keep the water out, but their endeavours proved futile, when the crew jettisoned all the cargo in order to save themselves and the mahangiri. Little or no damage to the mahangiri. Value of cargo lost, ₹180. No loss of life. (The accident was unavoidable.)

315. The British iron ship MIDDLESEX [of London, 1,742 tons register,

official number 89663], from Chittagong to Dundee, with a cargo of jute. The pilot stated that on the morning of the 26th October, the steam-tug *Mary* went alongside the ship *Middlesex*, lying at anchor at No. 4 swinging moorings in the Kornafuli river (Chittagong coast), for the purpose of towing her out to sea, and after passing the hawser to her she steamed ahead, and shortly afterwards the hawser fouled the ship's port anchor and drew it out from her side, whereupon the pilot fearing lest the anchor slipping off the hawser would go through the bow plate, ordered the tug to ease down, but owing to the tide the *Mary* lost steerage way, and the master on endeavouring to right her with the aid of the propeller, the hawser got foul of the screw and she dropped alongside and came into collision with the ship *Middlesex*, striking her on the starboard side, thereby doing some slight damage to the latter vessel; thereupon the crew cleared the propeller, but as it took nearly three hours to do so, the pilot found that the *Middlesex* could not proceed to sea that day on account of the water having fallen, and consequently put it off to the next day. Little or no damage to the ship. No loss of cargo. No loss of life. (The accident was of such a trivial nature that it was not considered necessary to hold any Departmental investigation. In this instance the collision was attributable to the hawsers not being triced up on board the tug, and to the anchor of the *Middlesex* not being catted before being taken in tow.)

316. The British iron paddle steamer MARY [of Falmouth, 195 tons register, official number 89735], was employed as a tug on the Kornafuli river. On the 26th October, the steamer was alongside the ship *Middlesex* ready for towing her down the Kornafuli river (Chittagong coast). At noon the hawser was passed to the tug, the ship lying moored at the buoy, No. 4 swinging moorings, and the pilot of the *Middlesex* ordered the tug to steam ahead, but whilst doing so the hawser fouled the ship's port anchor, whereupon the pilot directed the master of the *Mary* to ease down; this had the effect of causing her to lose the steerage way she had on, and in consequence of the tide she took a broad sheer on the starboard side of the *Middlesex;* on turning ahead to recover her position the hawser unfortunately fouled the steamer's screw, when the *Mary* dropped alongside and came into contact with the *Middlesex*, her starboard quarter slightly striking the ship's starboard side. The hawser was then cleared, but it was too late to enable her to tow the ship on account of the tide; but the next day, however, the *Middlesex* was safely towed to sea. The *Mary* sustained very trifling damage, only a portion of her stern moulding having been broken. No loss of life.

317. The British iron screw steamer CARLTON [of Newcastle-on-Tyne, 1,322 tons register, official number 91485], from Rangoon to Bombay, with a cargo of rice. On the 27th October, the steamer under charge of a pilot, was proceeding down the Rangoon river (Burma coast); at 6 A.M. the vessel sprung a leak owing to the injection cocks having been left open by the negligence of the engineer, thereby damaging about 280 bags of rice by salt water. The cocks were promptly closed as soon as the accident was discovered, and all the water was pumped out of her. The vessel did not put back, but proceeded direct on her voyage. No damage to the steamer. Value of damage to the cargo, ₹350. No loss of life.

318. The British Indian wooden barque HEROLD [of Chittagong, 927 tons register, official number not reported], from Cochin to Chittagong in ballast. The barque left Cochin on the 25th October in ballast, and nothing of importance occurred till the 29th, when passing to the westward of the island of Ceylon in latitude 6° 49′ N., longitude 79° 10′ E., she encountered a succession of strong gales from W.S.W. and shipped large quantities of water. She was proceeding under lower topsails and foresail at the time of the casualty. The vessel was strained owing to excessive labouring and became leaky; attempts were made to

stop the leak, but without success, and it was found to increase. On the 20th November, there were 2′ 3″ of water in the hold, and although the pumps were kept constantly going, the water increased to nearly 3′. Soon afterwards the master put into Acheen in distress, where, after having temporarily repaired the damage, she arrived at Pulo Penang for examination and repairs. Value of damage to the barque not reported. No cargo on board. No loss of life.

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319. The British wooden barque RIBSTON [of Hongkong, 397 tons register, official number 58053], from Hamlin Bay (Western Australia) to Bombay, with a cargo of railway sleepers. On the 1st November when in the Indian ocean (exact position not given), the barque sprung a leak, cause not reported. On the 28th of that same month, she safely reached her destination and discharged her cargo in good order, after which she was docked and repaired. Value of damage to the barque, ₹11,208. No loss of cargo. No loss of life. (No official report of the accident reached this Department, nor could any information be obtained from Bombay; the Marine Authorities at that port reported "that any information with respect to the casualty to the barque *Ribston* had not been received by them;" the above details were compiled from private sources.)

320. The British iron screw steamer ABYSSINIA [of Glasgow, 713 tons register, official number 60356], from Zanzibar to Bombay *viâ* Aden, with a general cargo. On the 7th November, the steamer was lying moored in the Inner harbour of Aden (South coast of Arabia), when about 1 A.M. it was discovered that the vessel had suddenly sprung a leak; the pumps were at once set on, and on examination of the stokehole at daylight it was found that the water was entering about 6′ from the keelson on the starboard side under the boiler; a hole of 1″ in diameter was caused either from the corrosion of the plating under the cement, or that the cement was worn away apparently by the steam water or by friction. Attempts were made to stop the leak but without success, and it was found to increase; during the whole of that day the pumps were kept constantly going, and at 7 P.M. the leak was stopped. It was fine clear weather, the tide was ebbing and the night dark; the wind was a moderate northerly breeze and the sea smooth. Value of damage to the steamer, ₹1,250. No loss of cargo. No loss of life.

321. The British iron screw steamer BHEEMA [of Glasgow, 198 tons register, official number 80428], from Bombay to Korlai, with passengers and a general cargo. On the morning of the 7th November, the hodi *Sackri Salamati* was proceeding up the Revdanda creek (Bombay coast), and the steamer *Bheema* was then entering the creek; at 8 A.M., when near Korlai fort, the *Bheema* suddenly changed her course to avoid shoal water, and having overrun her distance, came into collision with the hodi, thereby causing her to fill rapidly; she foundered immediately. The casualty was attributed to the negligence of the master of the steamer *Bheema* in not having paid attention to the navigation. It was broad daylight, the weather was fine and clear, and the sea smooth, with a westerly wind. No precaution seemed to have been taken when the steamer was getting so dangerously near the beach, and the helm was put hard-a-port, but it was then too late, and she consequently ran into the hodi and sank her. Value of damage to the *Bheema* and cargo not reported. No loss of life. (No official report of the accident reached this Department, nor was any information obtained from Bombay; the above details were compiled from private sources.)

(*For an account of the Sackri Salamati see Wrecks, No. 78.*)

322. The British iron screw steamer CHUPRA [of Dumbarton, 1,432 tons register, official number 80431], from Rangoon to Calcutta, with a general cargo. On the 10th November, the steamer in charge of a pilot, was proceeding up the Hooghly river. At 3-30 P.M. in turning abreast Garden house point, Garden reach, during the last quarter flood, the vessel fouled the northernmost mooring buoy, making a dent, but no damage was done. The accident was caused by the starboard anchor of the steamer having got jammed when the order was given to drop it; and before the port anchor was let go the vessel's port bow struck the mooring buoy; the engines at the time were going full speed astern; previous to the order being given to let go the starboard anchor they had been stopped for 10 minutes, and she was drifting up broadside on, with slight head way, when the anchor got jammed by some unaccountable reason, and immediately the engines were put *first slow* and then *full speed astern* to avoid the collision, but unsuccessfully. No damage to the steamer or cargo. Value of damage to the buoy, R156. No loss of life.

323. The American wooden ship STEPHEN D. HORTON [of Parrsborough, North America, 1,626 tons register, official number 85615], from Calcutta to New York, with a general cargo. On the 10th November, the ship under charge of a pilot and in tow of tug steamer *Hunsdon,* was proceeding down the Hooghly river; at 3-15 P.M., when the vessel got to Fulta point, the tide had fallen one foot, and on observing that the Hooghly point semaphore showed 14′, he ventured to cross Nynan, making an allowance of a difference of 4″ fall between Nynan and Hooghly point, but the ship unfortunately grounded at Nynan with marks on eastward. She lay perfectly steady on the ebb-tide, heading S. by E., the least water round her being 21′ aft, 18′ amidships, and 18′ forward; the water having fallen, the tug cast off and anchored near by. On the night's flood-tide hawsers were passed to the *Hunsdon,* and with the assistance of the tug she floated off at 12-15 A.M. of the 11th and anchored at Hooghly point for the night. She was aground for 9 hours. The pilot stated that the report of the Hooghly point tide-watcher as to the rise of the tide at the semaphore was not quite correct, as, when the *Stephen D. Horton* got to Fulta point the vessel then drawing 23′ 11″, he would not have ventured to have crossed Nynan were it not that he considered it possible to have done it successfully, there being 14′ showing a short time before, and which did not fall to 13′ till after the vessel struck the ground, the pilot allowing a difference of 4″ fall between Nynan and Hooghly point. The pilot accounted for the accident for the following reasons:—*first*, that he would have had to neap the vessel until the 20th; *secondly*, that he expected to carry if not his own draught, at least within an inch or two of it; *thirdly*, that even had the *Stephen D. Horton* not crossed Nynan she would be on the other side of the ridge, and as subsequent events proved correct, the vessel would float when she could proceed on her way; and *fourthly*, that he was anxious to do all he could for the ship without materially damaging her, and the only fault which rested in him was the eager desire to expedite the progress of the vessel and thus save delay in having to be neaped for ten days. No damage to the ship or cargo. No loss of life. (The accident was due to the pilot having left too small a margin of depth. The Port Officer taking into consideration the few cases recorded against the pilot, considered it necessary to take no farther steps in the matter beyond warning the pilot to be more careful in future.)

324. The British iron screw steamer MIRZAPORE [of Greenock, 2,164 tons register, official number 65604], from London to Bombay, with a general cargo. On the 11th November, the steamer was proceeding up the Bombay harbour in charge of a pilot; at 10-30 A.M. whilst to the eastward of Cross island, going dead slow, the padow *Pospeer* stood across her bows, and the weather falling almost calm the pilot starboarded the helm in order to clear her, but owing to

another boat being on the steamer's port bow she had to steady again and go full speed astern, but it was too late to avoid a collision, and the anchor of the *Mirzapore* fouled the padow's rudder and caused her to list over and ship a large quantity of water, and after she cleared, the padow sank in about five minutes, her crew getting on board the steamer. No damage to the *Mirzapore*. No loss of cargo. No loss of life. (The collision was attributed to the fatal error on the part of the tindal,—almost habitual to craft of this kind, of not getting out of the way until too late; everything on board the steamer had been done to avoid the collision.)

325. The British Indian padow POSPEER [of Bassein, 10 tons register, official number 3121], from Karanja to Bombay with a cargo of sand. On the 11th November, whilst the steamer *Mirzapore* in charge of a pilot, was proceeding up the harbour of Bombay, with light wind and several Native craft standing in all directions, observed the *Pospeer* ahead and tried to clear her by starboarding the helm, but finding another boat on her port bow he steadied the helm again and went full speed astern, but too late to avoid the accident. At 10-30 A.M. when outside Cross island, the padow was fouled by the *Mirzapore;* the steamer's anchor which was just hove up clear of the water, struck the *Pospeer's* rudder and dragged her alongside, she took in a large quantity of water and heeled over and sank. The steamer's boat was lowered, when all the crew of the padow clambered on it and were placed on board the *Mirzapore*. The padow was ultimately raised and repaired. Value of damage to the *Pospeer,* ₹200; cargo all lost. No loss of life.

326. The British wooden barque PARRACA [of London, 464 tons register, official number 12321], from Chittagong to The Mauritius, with a cargo of rice. On the 12th November, the barque was lying moored abreast Baboo godown in the Kornafuli river (Chittagong coast), loaded with a full cargo of rice ready to proceed to sea. The master stated that he would load up to 15′ in that berth, but as she was afterwards loaded down to 17′ 6″ her heel took the ground when swinging to the night's flood-tide, but came off after about half an hour. She sustained no injury, and proceeded on her voyage the next day. The master accounted for the accident by the berth not being safe in consequence of the insufficiency of water there, and to the channel not being broad enough for swinging. No damage to the barque. No loss of cargo. No loss of life.

327. The British Indian schooner SOOBARAMANIA PURAVEY [of Tuticorin, 82 tons register, official number 4 of 1882], from Colombo to Tuticorin, with a general cargo. On the 12th November at 9 P.M., whilst the schooner was proceeding up the Gulf of Manár, the tindal steered her in too shallow water, and she would not steer properly; finding such was the case, he ran her up as near the land as possible and beached her on the Manauli reef; she floated off at high-water, and was repaired at a small cost. Value of cargo lost to get her off, ₹150. No loss of life. (The casualty occurred through want of due care on the part of the tindal.)

328. The British Indian brig SUBRAMANIA PURAVEY [of Tuticorin, 95 tons register, official number 2 of 1882], from Colombo to Tuticorin, with a general cargo. On the 13th November, the schooner sprung a leak, and there being 4′ of water in the hold, the tindal ran her up on Manauli reef (Gulf of Manár) in order to save life, but this was obviously false, as the crew stated that she had grounded, and that after she floated it was found that the only leak that was caused was by her fore foot striking the reef, and her top sides and bends had strained. There was a fresh N.E., breeze and a fine clear moon; the tindal evidently finding that she was amongst the islands and with shoal water all round, got frightened and ran the schooner on to the reef at 9 P. M. She was subsequently got off and repaired extensively at a cost of ₹1,000; cargo worth ₹500 was lost. No loss of life.

329. The British iron screw steamer ANTONIO [of London, 1,214 tons register, official number 77017], from London to Bombay, with a general cargo. On the 18th November, the steamer arrived in Bombay harbour and proceeded up the river under charge of a pilot, and circumstances having compelled her to anchor in the Princes' dock channel, it was found on heaving in the chain again preparatory to proceeding to her berth in the dock, that one of the Port Trust dredger's chains had got foul of the steamer's anchor, and to clear it the *Antonio's* officers hove the anchor too far up, so that the ring was brought right into the hawsepipe, thereby bringing on so excessive a strain on the cable that the cogwheels of the windlass were stripped, which allowed the anchor and cable to run to the bottom again, causing slight damage to the Princes' dock warp boat, which had put off to assist her in clearing the anchor. No damage to the *Antonio*. No loss of cargo. No loss of life. (The official report of the accident in this case had not been received at this Department, although frequent applications for it had been made to Marine Authorities, Bombay; the above details were compiled from private sources.)

330. The British Indian mahangiri KADIRBAX [of Alibág, 17 tons register, official number 98, age not known], from Bombay to Revdanda, with a general cargo. The mahangiri had arrived in Revdanda creek (Bombay coast), and was lying at anchor having discharged her cargo. On the 19th November the steamer *Uran* got underweigh preparatory to proceeding out of the creek, when at 6 A. M. in rounding-to she misjudged her distance and ran into the mahangiri *Kadirbax*, thereby doing slight damage to the latter. No loss of life. *(No report of the casualty to the steamer Uran had been received at this Department, although application for it was made.)*

331. The British iron screw steamer ATRATO [of Sunderland, 2,066 tons register, official number 87354], from Bombay to Antwerp, with a general cargo. On the 20th November the steamer was proceeding up the Red sea; at 8-30 P.M., when about 10 miles west of Mokha, she was run into by the steamer *Sir William Armstrong* and sustained serious damage to her propeller. Value of damage to the *Atrato* not reported. No loss of cargo. No loss of life. (The collision was attributed to a want of judgment on the part of the masters of the respective vessels in not rightly comprehending the Rule of the Road at sea.)

332. The British iron screw steamer SIR WILLIAM ARMSTRONG [of Newcastle-on-Tyne, 1,474 tons register, official number 88772], from Newcastle-on-Tyne to Bombay, with a cargo of coals and coke. The steamer was proceeding down the Red sea, and nothing of importance occurred till the 20th November. At 8-30 P.M. on that day, when 10 miles west of Mokha, she came into collision with the *Atrato* and damaged the propeller of the latter vessel. Value of damage to the *Sir William Armstrong* not reported. No loss of cargo. No loss of life.

333. The British iron screw steamer CITY OF KHIOS [of Glasgow, 2,121 tons register, official number 78632], from Calcutta to London, with a general cargo. The steamer on the 20th November, whilst dropping down the Hooghly river from No. 7 Jetty to Garden reach, under charge of an assistant harbour master, passed over a mooring hawser which was stretched across the river, for the purpose of sheering the barque *Penultième* out into the stream; when the barque was far enough out, the assistant harbour master in charge of her gave the hawser boat the hawser to reel up, and the *City of Khios* in passing over the hawser got it coiled round her propeller shaft, which necessitated her being put back to No. 7 Jetty, where she was detained for six days, in order to discharge a portion of her cargo to lighten and clear the propeller. Value of damage to the steamer, ₹6,000; cargo ₹7,000. No loss of life.

[A Departmental Committee of Inquiry was held at the Port Commis-

sioners' buildings, Calcutta, by the Deputy Conservator on the 28th November, for the purpose of inquiring into the cause of the casualty which led the steamship *City of Khios* to foul a wire hawser which was stretched across the river for the purpose of sheering the barque *Penultiéme* out into the stream. After perusal of the reports of the assistant harbour masters of the barque *Penultiéme*, the steamers *City of Khios* and *Maharani*, the witnesses for and against the prosecution were called and examined. The Committee recorded that they held an exhaustive investigation into the matter, whereby the vessel had to put back to discharge a portion of the cargo to lighten and clear the propeller, and after a careful consideration of the evidence produced, the harbour master charged the assistant harbour master of the *City of Khios* with reckless navigation. The Committee observed that the circumstances of the case seemed to have been that the *City of Khios*, in charge of an assistant harbour master, was backing down the Hooghly river under steam through the port, and at the same time the *Maharani*, also in charge of an assistant harbour master, was sheering out of the hauling-out space off No. 3 Hastings' moorings, and the barque *Penultiéme*, under charge of an assistant harbour master, had in the usual way, before the *City of Khios* got so far down as Prinsep's ghât, sheered herself out with the aid of a wire hawser into the stream, and when far enough out, the assistant harbour master in charge of her ordered the Hawser boat to reel up the hawser, when the *City of Khios*, in proceeding down to Garden reach, passed over the hawser, whereupon it got coiled round her propeller shaft, thereby necessitating her return to moorings. The defence set forth by the assistant harbour master of the *City of Khios* was, that the *Maharani*, after sheering out of her moorings, crossed over to his port quarter and then sheered back, and was therefore between the *City of Khios* and the hawser boat, and consequently hid the hawser from his sight ; and by the time the *Maharani* was clear of the *City of Khios*, it was too late to avoid an accident. The Committee observed that as to the question of the *Maharani* being in the *City of Khios's* way, no importance could be placed upon it, as, when the assistant harbour master observed a vessel astern of him on his way, it was his duty not to have backed down until he saw that everything was clear ; the *City of Khios* had room ahead of her to either anchor or lie-to until her assistant harbour master was certain that everything was clear. The evidence given by the officers of the *City of Khios* was not so satisfactory as the Committee wished. The master of that vessel stated that the second officer and the quartermaster were stationed aft to see whether everything was perfectly clear ; but on examination of the second officer, it was alleged that the officer was not looking out at all, nor had he orders to that effect ; and the quartermaster's statement was that he only went aft to dip the flag to a passing vessel, or he would not have been there also. Both the master's and the quartermaster's evidence agreed that when they first observed the Hawser boat she was nearly 20 yards off, and the attention of the master was only attracted to the Hawser boat by the assistant harbour master telling the crew of the boat to slack away their hawser. The second officer stated that from his position on the quarter deck the Hawser boat when first seen was only 8′ or 9′ off, and as this was an impossibility, the Committee placed no value on his evidence. The assistant harbour master in charge of the *Maharani* stated that he was never in a position to prevent the *City of Khios* from sighting the Hawser boat, but if he was, it was for so short a time that he could not possibly have interfered with her movements, and that was substantiated by the assistant harbour master in charge of the barque *Penultiéme*, as also by the crew of the Hawser boat. The Committee recorded that the witnesses were unable to prove conclusively that the *City of Khios* was backing full speed when she came into collision with the Hawser boat, as the evidence was somewhat conflicting on that point, but the propeller must have fouled the wire hawser before the boat closed on the *City of Khios*,

and it was probably dragged towards her when it came close enough to feel the strong indraught from the propeller's movement. With the evidence before the Committee, therefore, and having given all the points connected with the case their most careful consideration, they were of opinion that the casualty was solely due to a most indiscreet manoeuvre on the part of the assistant harbour master of the *City of Khios*. It was clear to the Committee, and which he himself admitted, that he observed the Hawser boat, and had he stopped the vessel's engines immediately he saw the boat, and not moved them again until he had passed over the Hawser, the Committee considered that the accident would have been averted.]

(The only official information obtained from the Port Commissioners was the report of the Departmental Committee of Inquiry ; the further details had to be compiled from private sources.)

334. The British iron screw steamer CHUPRA [of Glasgow, 1,432 tons register, official number 80431], from Calcutta to Bombay *vid* coast ports, with a general cargo. On the 21st November, the steamer in charge of a pilot, was proceeding down the Hooghly river during the last quarter ebb. At 7-40 A.M., whilst turning the steamer to proceed down the river—the engines going half speed ahead and the helm hard-a-port—and just about one-third round from the northern bank above the Botanical garden's ghât, the vessel suddenly shoaled from 6 to 4¼ fathoms, and her port bilge took the ground abreast the corrugated building in the Botanical gardens; the engines were instantly reversed full speed astern, and afterwards full speed ahead alternately, but failing to move her, they were stopped. At 9-30 A.M. on the flood-tide making, the engines being worked full speed ahead, she floated immediately and safely continued her way down the river. The *Chupra* was aground for nearly two hours. No damage to the steamer or cargo. No loss of life. (The cause of this casualty was attributable to an extension of the spit of the Bishops' College sands.)

335. The British iron schooner MESSINA [of Dundee, 376 tons register, official number 44796], from Calcutta to Dundee, with a cargo of rice, grain and ghee. On the 22nd November, the schooner under charge of a pilot, and without steam, was proceeding down the Hooghly river. At 5 P.M. the tide being half-ebb and the wind gusty from N.N.E., the pilot anchored the vessel in 8½ fathoms of water, at Diamond harbour, the Post Office bearing N. by E., with 25 fathoms of chain veered out on the starboard anchor. Shortly afterwards, whilst the crew were furling the sails, the schooner broke her sheer and carried away the stoppers and parted the chain at 55 fathoms, thereby losing the anchor, when the pilot brought her up with the port anchor. The crew tried all night to sweep for the lost articles with the aid of the schooner's boat and the tow boat, but unsuccessfully. The hull not having sustained any damage, and the wind being favourable, the pilot proceeded with the vessel at daybreak on the 23rd. No damage to the *Messina*. No loss of cargo. The anchor and chain lost by the schooner were not replaced at Calcutta, neither were they recovered. The value of the lost articles was about ₹829. No loss of life.

336. The Cingalese wooden brig ATHELETCHMY [of Jaffna, 130 tons register, official number 69784], from Akyab to Kyouk Phyou in ballast. On the 22nd November, the brig when 75 miles W.N.W. of St Martin's island (Bay of Bengal), encountered a cyclone; all the sails, yards &c., were carried away and the jibboom broken, besides doing other minor damage. At 7 P.M., the brig labouring heavily, the crew cut away the mainmast to lighten her, but to no effect, as the vessel was driving about for several hours; when the storm abated she made sail and put into the port of Akyab in distress. Value of damage to the brig, ₹700. No cargo on board. No loss of life.

337. The British iron screw steamer MONKSEATON [of Newcastle, 1,892

tons register, official number 86099], from Bombay to Marseilles, with a general cargo. The steamer was in proper trim just down to her Plimsoll mark, and she had an even keel this time which was about the usual thing. On the night of the 23rd November at 11 o'clock, the pilot boarded the vessel, and half an hour afterwards she left Prince's dock and proceeded down Bombay harbour. All went well until midnight, but just as the steamer came between the Middle Ground island and Sunk rock, the chief engineer went up to the master and requested that the engines might be stopped for the space of six hours on account of some defects, whereupon the master told the pilot to bring the vessel to an anchor, and accordingly she was anchored a mile to the N.N.E. of the Sunk rock light-house. At half past 6 the next morning (the 24th) the *Monkseaton* was swung ebb, after which she got underweigh with a light N.E. wind blowing; the sun was rising, and it was a clear morning only that Malabár hill was a little hazy. The pilot turned the vessel round with her head to the eastward, and when he got her sufficiently round pointing out of the harbour the helm was steadied; she was proceeding to sea heading to the Outer light-ship, and after having passed three cables to the westward of the Sunk rock light-house the pilot starboarded the helm, thereby bringing the Outer light-ship to bear a point on the starboard bow, after which it was steadied, and it seemed that the pilot gave no course to the second officer steering, except to steady. At that time the vessel was in charge of the pilot, who was walking up and down the upper bridge, and all hands were on deck; the first officer was on the look-out forward and the second officer was at the wheel, a small one which was on the upper bridge. The steamer was going through the water full speed at the rate of 8 knots an hour; at that time he watched the Outer light-ship and found it all right, the Sunk rock light-house then being on the centre of Salsette hill, but a minute or a minute and a half afterwards, finding that the Outer light-ship was a point and a half on the port bow, he ordered the helm to be put a-starboard, and then hard-a-starboard; the *Monkseaton* answered her helm at once and went off and brought the Outer light-ship on to her starboard bow, and within two minutes heavily touched the ground on the S.E. side of the Prongs reef, to the North of the 17-feet patch. After the casualty the pilot did not stop her and reverse the engines, because by doing so her head would fall off to starboard and she would drift farther on the reefs; the engines were kept going full speed ahead, with the helm hard-a-starboard, hoping that she would sheer off to the eastward on her starboard helm and deepen her water, but unfortunately she again struck the ground two or three times at short intervals, and she gradually lost her way until she stopped. No boat was lowered for sounding, but on the lead being hove, found $3\frac{1}{4}$ to $3\frac{1}{2}$ fathoms forward, and 4 to $4\frac{1}{2}$ fathoms aft, the bottom being principally hard; thereupon the engines were turned astern and the vessel backed a little bit. The steamer thus backed and went ahead in this way for about an hour, when she came round with her head to about S.S.E., and at 8 A.M. she got clear of the reefs and steamed up the harbour, and was safely anchored east of the Middle Ground island. No orders were given by the pilot to ease the engines, or as regards the lead. The master swore that he was not aware of any course having been given by any fixed object by the pilot when proceeding to sea on the morning in question. After passing the Sunk rock light-house the pilot asked him to prepare the certificate, whereupon the master went below, and after filling it up came on the bridge, when three minutes afterwards the pilot called out "starboard, keep her off a bit", and almost instantly he ordered "hard-a-starboard," all of which were promptly obeyed. He stated that he took particular notice to see why the pilot did so, and observed that the Outer light-ship was a point and a half on the port bow, and directly afterwards the steamer struck the ground, but not

very heavily; he thereupon told the pilot to stop her, but the pilot said "no, keep her going;" the vessel then began sliding along the ground from that moment up to the time she stopped. The master was of opinion that the cause of the accident was due to the steamer having been kept too close in towards the reefs; that everything was carried out according to the pilot's orders; that had the engines been reversed full speed astern at the time the first order was given to starboard the helm it would have brought the vessel more on to the reefs; and that had the lead been hove, it might have prevented the vessel running on to the reefs. The second officer stated that when the steamer got underweigh on the morning of the 24th, he went to the wheel and attended to the steering; there was no special reason for his taking the wheel, but he thought that by so doing it would give more hands for clearing up the vessel before proceeding to sea. He deposed to having received the orders to "port," "starboard," and "steady," and that the *Monkseaton* did not sheer from the time she was last steadied to the time the order to starboard was given. He was steering according to the pilot's orders, and steadying her by an object he saw ahead; the last object he steadied her by being a small schooner at anchor a good way off. The first officer stated that he was on the forecastle head when the steamer passed the Sunk rock light-house on the morning in question, but he did not know by what the vessel had been steered, or what orders were being given, or how she bore as regards the Outer light-ship. The second engineer affirmed that when the steamer started she proceeded at first slow ahead and then full speed, which was continued until about 50 minutes past 6 o'clock, when he received an order to stop, and just at 6-35 A.M. he felt the shock of the vessel striking the ground. She was going about 55 revolutions and at 82 lb pressure of steam on. The pilot accounted for the casualty to the vessel either taking a sheer to starboard or was allowed to come to on her port helm, but in his report he had stated that he was "hugging the reefs too close." He was steering his usual course, and when the Sunk rock light-house was in line with the centre of Salsette hill, he steadied the helm and kept the Outer light-ship a point on the starboard bow. The master, after the steamer stranded, kept sounding the hold and bilges the whole time, but found that she had made no water. On the morning of the 24th the Surveyor to the port, accompanied by the Engineer Surveyor, proceeded on board the steamer *Monkseaton*, lying afloat on the east side of Middle Ground island, in order to make a survey on the bottom of that vessel, she having, when on her passage down Bombay harbour, grounded on the Prongs reef, and during the time she remained on shore it was stated that the steamer bumped heavily on the reefs. After carefully sounding the wells they sealed up the pumps after seeing her pumped out dry, and when they unsealed them two hours afterwards, she had still the same quantity of water. The Surveyors examined the drawings of the steamer, and noticed that they were capable of surveying the internal skin of the vessel in the ballast tanks from the foremast to the after peak; the fore hold was not examined owing to the cargo being in it; they therefore recommended that she proceed into Prince's dock, and that a portion of the cargo be discharged from the fore hold sufficiently to lighten her for examination of the hull in that compartment. On the 25th the Surveyors visited the vessel and examined her from the inside, beginning from the stoke-hole bulkhead right to the after peak, but could not discover any signs of her having been recently on shore, the tanks being in splendid condition and very clean. The fore hold not being ready for inspection, they again visited the steamer on the 26th, and the limber boards being lifted in the centre they went underneath, and in the second frame found the cement broken; they thereupon ordered the whole of the limber boards to be lifted and the plates to be thoroughly cleaned, when it was discovered that the third plate

from the keel in the way of the fore hatchway on the starboard side, between the frames, was bulged, cracked and burst, and on inserting a small pocket knife into the broken part, the water rushed into the vessel. They advised that the whole of the cargo be discharged and the steamer be placed in dry dock for examination of the cement and floors, and any repairs which might be required in those parts. They visited the steamer on the 30th and found that she had discharged all her cargo in Prince's dock, and after having filled up her water ballast tanks she proceeded into Ritchie dry dock on the afternoon's tide of the 28th. After a careful examination of the hull and all fittings under water, they discovered that all the damage the vessel had sustained was the one plate which they found from the inside when examining her in Prince's dock. This plate was cracked and burst, and had slightly bulged between the two frames; they advised that it be taken out and a new one fitted on; the frames were intact and had not received any injury; about a dozen rivets were more or less started on the same side under the engine-room, and the ballast tank was leaking a little, also the paint was chipped off the vessel's bottom. After the repairs were effected, the steamer was finally inspected and the usual certificate granted, and after having re-shipped her cargo she sailed for Marseilles on the 5th December. The steamer was aground for an hour. Value of damage to the *Monkseaton*, ₹4,660; cargo, ₹1,250. No loss of life.

[A Marine Court of Inquiry was held in the Fort Police Court, Bombay, by the Chief Presidency Magistrate, on the 30th November and 3rd December, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances attending the stranding of the above vessel on the S.E. side of the Prongs, when in charge of a first grade pilot, in the Bombay Pilot service. The Court recorded that on the 30th, having assembled pursuant to citation, the papers and correspondence relating to the case were read and filed. The Government Prosecutor then briefly opened the case, after which the witnesses were called, sworn and examined, and on conclusion of their evidence, the Court adjourned to the 3rd December, in order that they might consider their decision. From the evidence before the Court it appeared that the steamer *Monkseaton* left the Prince's dock on the night of the 23rd November, drawing 23′ 8″ fore and aft with a free board of 5′ 6″; she was in charge of a pilot who had been in the service since 1876, and was granted a certificate as first grade in 1880. She was properly equipped, and the master had on board the general chart of the Indian ocean, in a corner of which was a small chart of the harbour of Bombay; there were two compasses on board—Macgregor's patent compass, which was on the bridge, and a pole compass—and they had been tested in the month of October when in the Indian ocean. The Court observed that the steamer whilst proceeding out of Bombay harbour, at about midnight, the chief engineer reported that the machinery would have to be stopped for six hours, owing to certain defects, and the vessel was accordingly anchored in the harbour, about a mile N.N.E. of the Sunk rock light-house. At 6-15 A.M. of the 24th, the steamer proceeded to sea, it was about low-water, the sea was smooth, and there was a light breeze from the N.E.; the sun was rising, and it was a clear morning. All hands were on deck; the first officer was keeping a look-out forward, the master, the pilot, and the second officer were on the bridge; the vessel was being steered by steam by the second officer according to the pilot's orders, and was going at the rate of 8 knots. After passing a quarter of a mile to the eastward of the Sunk rock light-house, the master stated that the pilot asked him to go below and fill in his certificate; he did so, and on coming on to the bridge again he handed the pilot his certificate. About a minute or two afterwards the master stated that he would like to go down, and the pilot told him he could do so, that it was all right. Just as the pilot said this, he gave an order to starboard, and in less

than half a minute an order hard-a-starboard. The master stated that "I took particular notice to see why he did so, and I noticed the Outer light-ship was about a point and a half on the port bow, and a minute or a minute and a half after that she struck. I wanted to stop her, but the pilot said "no, keep her going." The master took the bearings of her position when she struck the ground, and found that the Sunk rock was in a line with the N.W. end of Butcher's island, and the Prongs reef light-house bore about W. by N.½ N. The hold and bilges were sounded during the whole time after the casualty happened, and she made no water. The pilot stated that he got underweigh at a quarter past 6 or half-past 6 in the morning (the 24th). The vessel was swung ebb at the time; he turned her round with her head to the eastward, and when he got her sufficiently round, pointing out of the harbour, he steadied her helm; she was then heading to the Outer light-ship. He let her go on in that way until she had passed the Sunk rock light-house, 2 cables or 3 cables to the westward; he then starboarded the helm and brought the Outer light-ship about a point on the starboard bow, when he steadied her at that. He gave no other course to the officer steering except steady; and he watched the Outer light-ship. At this time the Sunk rock light-house was in centre of Salsette hill. When in that position, the pilot stated—"I then let my attention wander from the steamer's course for a minute or a minute and a half; when I looked again the light-ship was a point or a point and a half on the port bow". He then ordered the helm to be put a-starboard and then hard-a-starboard; the helm was put over and the *Monkseaton* was coming to, but in a minute, or a minute and a half she touched the ground. He did not stop her and reverse the engines, as he thought by doing so he would bring her head to starboard and put her farther on the reefs. He kept her going full speed ahead with the helm hard-a-starboard, thinking she would come out and deepen her water, but she touched the ground again, and then gradually lost her way until she stopped; soundings were taken all round her, and 3¼ to 3½ fathoms were found forward, and 4 to 4½ fathoms aft. He then ordered the engines astern and backed her a little; he backed and went ahead in this way for an hour until she came round far enough and got clear of the reefs. The vessel then steamed into the harbour and was anchored East of the Middle Ground island. The pilot took cross-bearings after the steamer struck the reefs, and found that the Sunk rock light-house was almost touching the west end of Butcher's island, and the North Kolaba beacon was open a quarter of a point to the eastward of Oyster rock Battery; he considered that the vessel struck to the North of the "17-feet patch." The pilot alleged that he was steering the course he usually steered when he steadied the helm; that was, the Sunk rock light-house on the centre of the Salsette hill, and keeping the Outer light-ship half a point or a point on the starboard bow. The second officer positively stated that when the steamer got underweigh that morning he went to the wheel and steered; the pilot gave him orders. After he had turned her he got various orders—"port," "starboard," and "steady;" she remained steady for a long time for some distance after she passed the Sunk rock light-house. The vessel went very steadily for some 3 or 4 minutes until she took a bit of a sheer in towards the land, when she was then steadied again. The next order he got was "starboard," and then "hard-a-starboard," and shortly after that the accident occurred. He thought it would have been 7 or 8 minutes from the time she was last steadied up to the time he received the order "starboard;" she did not sheer during the time she was last steadied to the time the order to starboard was given. He was steering according to the pilot's orders and steadying her by any object he saw ahead; he thought that the current caused the vessel to sheer. The cargo was discharged and the steamer taken into dry dock and a survey held, and it was found that the vessel had not sustained

much damage; one plate on the starboard side of the fore hold was broken and a few rivets were started on the starboard side in the bottom of the engine-room and the middle ballast tank was leaking a little. In the pilot's opinion the cause of the stranding was either that the vessel took a sheer to starboard or was allowed to come-to on her port helm. After carefully considering the evidence the Court came to the conclusion that the stranding of the steam-ship *Monkseaton* on the foul ground off the S.E. side of Prongs reef on the morning of the 24th November, whilst proceeding out of Bombay harbour in charge of a first grade pilot, was due to the carelessness and inattention of that officer to his duties as such pilot, but no blame was attributable to the master, the officers and crew, as every order given by the pilot was implicitly obeyed. The pilot had stated that after passing the Sunk rock light-house about a quarter of a mile to the eastward he ordered the helm to be steadied and steered his usual course; the Sunk rock light-house was then on with the centre of Salsette hill (The Neat's Tongue) and the Outer light-ship one point on the starboard bow. The Court were of opinion that although with those marks on they would leave the vessel clear to the eastward of the reefs known as the S.E. Prongs, still it was neither expedient nor prudent for a pilot to have taken that course, passing so close as he must have done to a dangerous reef at low-water spring tide with a heavily laden and deep-draught steamer, drawing 23′ 8″. The Court considered also that the pilot failed in his duty after steadying the helm on passing the Sunk rock light-house in that he did not give the helmsman a course, or point out to him the Outer light-ship as the object to steer by, and that he also showed great want of care and attention in looking after the steering of the vessel when passing so close to the S.E. Prongs, as the *Monkseaton* had not sufficient room to port her helm, if required, to any extent to avoid a collision with any vessel which might have been met with in her course. The Court recorded that it had been brought to their attention that a direct course could not be steered between the Outer light-ship and the Sunk rock light-house, and that before the Inner light-ship was removed, a direct course could be steered between that vessel and the Outer light-ship. It therefore appeared most desirable to the Court that they would strongly recommend that a large buoy should be placed just clear of the foul ground known as the "17-feet patch" and extreme of the S.E. Prongs reef, which buoy would be of great service to the pilots' and masters, especially to the latter when having to enter the port of Bombay without a pilot, and in thick or hazy weather when land marks and other objects were obscured. The Court in considering this case for the orders of the Local Government held that as the *Monkseaton* at the time of stranding was under the charge of a duly qualified pilot, no breach of duty could be attached to the master, and therefore acquitted him of all blame, leaving the pilot to be dealt with by the Port Trustees.]

The Governor of Bombay, after a perusal of the papers in this matter, directed that a copy of the Court's proceedings and report be forwarded to the Chairman of the Port Trustees, who should be requested to inform the Government what steps they proposed to take in respect of the pilot, whose conduct in relation to the accident had been so unfavourably reported on by the Court, and for early consideration by the Trustees of the recommendation contained in the last paragraph regarding the necessity for placing a buoy clear of the foul ground known as the *17-feet patch*, and extreme of the S.E. Prongs.

The Port Officer of Bombay recorded that the case against the pilot was a very grave one; a valuable steamer laden and proceeding to sea was by his culpable acts run on to a well-known danger, was slightly damaged, had to run to harbour, discharge her cargo, go into dry dock, be repaired before she could make good her departure, entirely owing to the pilot's utter neglect of his duty. He observed that since the Marine Court sat it had come to his

notice that in addition to the pilot, a probationer pilot, although not examined by the Court nor responsible in any way, was on board and on the bridge; he stated that when passing the Sunk rock light-house he noticed that the morning was misty, that several country craft were passing across the mouth of the port, and the *Monkseaton* was sheering a good deal, and was being steered with too much helm, insomuch that when the helm was ordered to be steadied she sheered considerably before she could be kept to a point; he also stated that the pilot in charge of the vessel was conversing with the master up to the time that the latter went below to fill up the departure report. It appeared to the Port Officer more than possible that the pilot steadied the steamer on a proper course by the Outer light-ship, but that not having specially pointed that vessel out to the helmsman, the latter took and followed a schooner crossing to the N.W. as his object to steer by, and if that error did occur, a few minutes would suffice to have put the steamer far out of her course. The excellent character which the pilot had borne throughout his service as an officer for steadiness, intelligence, and efficiency should carry consideration in dealing with his case. Throughout his career he had not met with any serious accidents, this being the first very culpable fault he had committed, and his bearing since the accident convinced the Port Officer that, whatever punishment might be awarded to him, he had suffered mentally very severely, and had received a lesson for his gross carelessness he would never forget. The pilot, though not formally suspended, had not been detailed for duty since the date of the accident, and before the matter would be finally disposed of the period would probably extend to nearly two months, a sufficiently long time for it to be desirable for him to be away from his duty. The Port Officer suggested that for the space of two months, *viz.*, from the 24th November, the pilot should forfeit all pay, and only be allowed subsistence allowance at the rate of R200 per mensem; he would thus be an immediate loser of about R600, and in addition that he be degraded to the bottom of the list of second grade pilots for a term of twelve months from the date of the accident, after which he might be replaced at *the bottom* of the list of first grade pilots, by which he would probably lose R1,000 exclusive of the above R600, and an uncertain prospective loss by delayed promotion. The punishment was a severe one, but not too much so for the gross carelessness the pilot was guilty of. As regarded the recommendation of the Court that a large buoy should be placed just clear of the foul ground known as the "17-feet patch" and extreme end of the S.E. Prongs reefs, the Port Officer observed that it was one in which he did not concur in any respect; his views as a general rule regarding the placing of permanent buoys in positions where they were not urgently and manifestly required was objectionable, not only on account of the expense of providing and maintaining them, but from their liability to be displaced and consequently become a source of decoy into danger by vessels making fast and hanging on to them during strong tides, but also because they formed a constant danger and source of anxiety during *dark* nights to *every* vessel, native as well as square-rigged, navigating in the vicinity and in the fairway of the port, and might very possibly injure the hull or machinery of a vessel perhaps fully laden leaving the port, when she would otherwise proceed safe and sound. In the proposed position a buoy would be directly in the fairway; it would form a danger by *day* as well as by *night*. In the *day* it would not be nearly so conspicuous as the numerous land and other marks which were available at any time that a buoy could be seen, and during the *night* the point of danger was already amply guarded by the red cut in the Sunk rock light-house, and to place a buoy in that position would simply be to form a constant danger to be dreaded *by all* during the stormy nights of the monsoon and the dark nights throughout the year, during which time large numbers (thousands) of the smaller coasting and country craft, and also steamers passed

the spot; and he need scarcely point out how undesirable the results would be if a large steamer, perhaps a troopship or a mail steamer, were, by force of circumstances in having to port the helm as suggested by the Court, or through other cause, to run foul of such a buoy and bilge her bow or break her propeller against it. The Port Officer was of opinion that the circumstances did not justify such a measure as that recommended; the *only two* cases of accidents on record for the past twenty years were those of the Austrian steam-ship *Tebe* (which casualty occurred in May 1877), in charge of a third class pilot who proved afterwards to be a most untrustworthy man, and for incompetence was subsequently dismissed; and in May 1882 the American ship *Alexander Yeats* in working out of the port when in stays fore-reached and touched slightly whilst in charge of the accused. There formerly was a buoy maintained as a mark for guiding vessels into the harbour in the event of a light-ship breaking adrift, but it was removed by the former Harbour and Pilotage Board in consequence of the danger it formed to steam-ships. A buoy for the exposed position in which it had been proposed would require to be a very large one, probably 28′ or 30′ in height, and in such an exposed and distant position would be liable to break away or drift or be dragged, and the Port Officer considered would materially aggravate any danger which existed, but regarding which there was no difficulty had ordinary care and attention been paid to the navigation, which in the case that led to the recommendation being made it had been decided there was not, and to meet which it was, he considered, beyond the scope of ordinary or reasonable requirements to provide. He recorded that some of the more experienced pilots were of opinion that a buoy in the proposed position would be very undesirable, and should it be proved hereafter that some mark was required for that danger, it must, the Port Officer considered, be a *beacon* to be placed on the danger itself and *not* a *buoy* floating in the fairway of the port.

The Trustees, after a careful perusal of the Court's proceedings and other papers and correspondence in the case, observed that the Port Officer had recorded that the Court of Inquiry appointed by the Local Government had found that the stranding was due to the carelessness and inattention of the pilot to his duties; that he failed in his duty in that he did not give the helmsman a course to steer by or point out to him the Outer light-ship as the object to steer by, and that he showed great want of care and attention in looking after the steering of the *Monkseaton* when passing so close to the S.E. Prongs reef. The Port Officer reviewed the circumstances connected with the accident, and considered that the excellent character which the pilot had borne throughout his service for steadiness, intelligence, and efficiency, should carry weight in dealing with his case. He stated that the pilot, who joined the Bombay Pilot Service in February 1876, stood fourth on the list of first grade pilots, and that he had not hitherto met with any serious accidents. He farther stated that though not formally suspended the pilot had not been detailed for duty since the date of the accident, *viz.*, the 24th November, and that before his case would be finally disposed of the period might probably extend to nearly two months. He therefore suggested that for the period of two months from the date of the accident the pilot should forfeit all pay, and only be permitted subsistence allowance at the rate of ₹ 200 per mensem, and that in addition he be reduced to the bottom of the list of second grade pilots for 12 months from the date of the accident, after which he might be replaced at the bottom of the list of first grade pilots. He stated that should this recommendation be acted upon the pilot would lose about ₹1,600 in pay, besides any farther injury that might accrue through loss of promotion. With regard to the recommendation of the Court that a large buoy should be placed just clear of the foul ground known as the "17-feet patch" and extreme end of the S.E. Prongs reef, the Port Officer did not concur in it. He was of opinion that a buoy in

any position where it was not urgently and mainfestly required, was objectionable, not only on account of the expense of providing and maintaining it, but from its liability to be displaced and become a decoy into danger, besides forming a constant danger and source of anxiety during dark nights to every vessel, native as well as square-rigged, navigating in the vicinity and in the fairway of the port, and might very possibly injure the hull or machinery of a vessel. He stated that in the proposed position a buoy would be directly in the fairway, and would form a danger by day as well as by night; that in the day it would not be nearly so conspicuous as the numerous land and other marks which were available at any time that a buoy could be seen, and that during the night the point of danger was already amply guarded by the red cut in the Sunk rock light-house. The Trustees recorded that the recommendations of the Port Officer, which were concurred in by the Harbour and Pilotage Committee, were approved and adopted.

The Governor of Bombay remarked that it was gathered from the resolution of the Trustees that the pilot was to forfeit all pay for two months from the 24th November, the date of the accident to the steam-ship *Monkseaton*, receiving in lieu a subsistence allowance at the rate of ₹200 per mensem, and that he was also to be reduced to the bottom of the list of second grade pilots for twelve months from the above date, thus losing nearly ₹1,600 in pay besides any farther loss that might accrue through loss of promotion. The Port Officer of Bombay for reasons stated in the Trustees' resolution did not concur in the recommendation of the Court regarding the necessity for placing a buoy clear of the foul ground known as the "17-feet patch" and extreme end of the S.E. Prongs.

338. The British iron screw steamer COCONADA [of Glasgow, 547 tons register, official number 67995], from Chittagong to Calcutta, with a general cargo and a large number of passengers on board. On the 28th November the steamer, under charge of the master (a licensed pilot of the port) was proceeding down the Kornafuli river (Chittagong coast); at 5-30 P.M., when nearing the red buoy marking the Outer bar, the steamer was suddenly caught by the tide, and not answering her helm fouled the buoy, which was dragged out of its position. No damage to the steamer; the buoy was relaid on the 2nd December after sustaining trifling damage. No loss of cargo. No loss of life. (The official report in this case had not been received at this Department although frequent application for it was made to the Marine authorities, Chittagong, as also to the Agents of the vessel; the above details were compiled from private sources.)

339. The British iron screw steamer CLAN ALPINE [of Glasgow, 1,348 tons register, official number 78650], from Bombay to Dunkirk, with a general cargo and 9 passengers on board for Perim island. On the 30th November the steamer arrived off the entrance to Perim harbour (Red sea), and at 6-45 A.M., the master signalled to the Managing Agents of the Perim Coal Company to despatch a suitable boat in which to land some passengers as she had no intention of entering the harbour. Shortly afterwards the master signalled for a pilot and made for the entrance to the harbour, intending to anchor under the lee of the land which terminated in Liverpool point. At 7-10 A.M., the pilot boarded the steamer, and not knowing that the helm was hard-a-starboard, he gave the order to put it hard over to starboard and put the engines full speed ahead, but the pilot denied ever giving that latter order; the steamer did not answer the helm owing to the very powerful current which was setting from the southward and eastward, so the engines were reversed and put full speed astern, and as the engines did not at once move, the pilot had no alternative but to drop the anchor, and there again another delay occurred as the anchor was on the tackles, when the *Clan Alpine* grounded gently on the sands off Liverpool point, South side of Perim island,

Straits of Báb-el-Mandeb. It was broad daylight, the weather was fine and clear, and the sea rough with a strong breeze from the East; the tide was then three-quarters flood. A boat was lowered to sound round the vessel; 20′ were found forward, 21′ amidships, and 24′ aft; the carpenter repeatedly sounded the holds and found them to be dry, and the position of the steamer was such that though it was blowing half a gale outside the harbour with a high sea running, she was perfectly sheltered, and neither bumped or strained herself. A bower anchor was immediately run out on the port quarter, there being too much sea to carry out a larger anchor, and at 9-30 A.M., the men hove away on the anchor, when the engines going full speed astern she floated off with the assistance of the Perim Coal Company's tug. A survey was afterwards held afloat and divers were sent down to examine the bottom, with the result that the vessel was declared to be in a good condition and fit to resume her intended voyage; the paint was rubbed off one plate on the hull, and it was moreover somewhat dented, but no aperture was detected, and that was further confirmed from the fact that the holds were perfectly dry. No damage to the *Clan Alpine*. No loss of cargo. No loss of life.

DECEMBER.

340. The British iron screw steamer PARKLANDS [of West Hartlepool, 1,133 tons register, official number 81511], from Penarth to Perim (Red sea), with a cargo of 1,700 tons of coals. On the 1st December the steamer was proceeding down the Red sea; the night was dark, but clear and fine, and the wind a strong breeze from the S.S.E; the weather was cloudy, and there was a heavy sea running from the S.S.E. with a strong current setting to the N.E. At 9-30 o'clock that night one of the firemen reported to the chief engineer that there was a very large blister on the starboard furnace and also on the starboard boiler. The chief engineer then ran up and called the master, requesting him to proceed under one boiler, and he immediately went down into the engine-room, and on noticing another very large blister on the port furnace of the starboard boiler, he ordered the fires to be drawn. The steamer was proceeding along under one boiler, her speed being about 3 knots an hour. At 2-10 A.M. the next day (the 2nd), when 75 miles N.N.W. of Perim island, the chief engineer observed another very large blister on the starboard furnace of the port boiler, and one on the port furnace of the port boiler; all the fires were drawn and the boilers blown down, and when sufficiently cool the engineers commenced to repair the defects. The master accordingly set sail and put the vessel on the starboard tack; when in mid-channel he tried to get her off before the wind, but owing to the hard gale blowing it was found that the steamer was drifting in a N.E. direction with a strong current; the crew thereupon got a steel hawser bent with a kedge anchor and let it go aft to put her before the wind, but the vessel refused to pay off; another large kedge was then got out with a steel hawser bent on, which had the desired effect. It was only possible to repair the starboard boiler—which was completed by midnight—on account of the blister in the other boiler being a very large one. Steam was ready by 6 A M. on the 3rd when the vessel proceeded along, slow, with the aid of one boiler; the crew then got in the small kedge, but ultimately had to slip the large one. At 7 A.M., the gale moderating, the steamer again commenced drifting in a N.E. direction with a strong current; thereupon the crew got both bower anchors ready; an hour afterwards the condenser tubes were found leaky, which necessitated her being stopped and the starboard anchor let go in 15 fathoms, and thus brought the vessel up with 100 fathoms cable. As soon as the boilers had cooled down the engineers set to work; two condenser

tubes were plugged, the feed-donkey sea injection freeway cock was ground in as the water had passed through into the feed pump, and they began fixing up the starboard boiler, after which she resumed her course, and at 4 A.M. on the 4th she arrived at Perim harbour without any farther mishap. The *Parklands* after discharging her cargo and effecting the necessary repairs, proceeded to Kurrachee to load a cargo homeward. The chief engineer attributed the accident to the leaking of both the condenser tube plate and the feed-donkey sea injection freeway cock. Value of damage to the steamer, machinery and cargo not reported. The value of the anchor and chain lost was not known; neither were they recovered or replaced. No loss of life.

341. The British iron paddle steamer UNDAUNTED [of Calcutta, 470 tons register, belonging to the Bengal Government], was employed on the Hooghly river. On the morning of the 1st December the vessel left her moorings at Garden reach and proceeded down the Hooghly river on an annual inspection of the Orissa ports; at 9-50 P.M. the Eastern Channel light-ship bore E. by S., distant 2 miles, when the commander set the course W.½ S. and streamed the patent log. At 6-10 A.M. the next day (the 2nd) he sighted the Kanaka buoy, and an hour afterwards picked up a pilot for Chándbali. She arrived at the port of Dhámrá (Orissa coast) at 8-30 A.M. where she anchored, and at 4 P.M. weighed and proceeded up the river, going easy, when at 5-10 P.M., owing to insufficient rise of tide at the time of crossing the Jhúta bar, the *Undaunted* touched the ground, but floated off, which caused her head to pay off towards Pilots' sand, when she again grounded on the northern end of Pilots' sand. The commander immediately ran a line ashore in order to try and get her head round, but the trees gave way; after which a kedge was run out, and the ebb-tide having made the vessel remained aground for the night, but on the following morning the slack was hove in on the kedge and the starboard bower laid out with the 10″ hawser fast to it, the engines moved ahead and the hawser hove on, but failed to start the steamer. In the meantime the crew pumped out the fresh water in the after tanks, and at 8-30 P.M. it being high-water, the commander hove again on the capstan and the engines worked ahead, when at 9 P.M. the vessel was successfully got off. At 11 P.M. she weighed and proceeded up to Chándbali. The steamer was aground for 28 hours. During the time the vessel was on shore a pump was damaged in the engine-room in consequence of the engines taking in sand; no other perceptible damage was done to the steamer, she having made no water. No loss of life. (It was reported that the grounding of the vessel on the first occasion was unavoidable, inasmuch as it was caused by insufficient rise of tide when crossing the Jhúta bar; the second casualty was due to the vessel losing the way she had on.)

342. The British Indian muchwa SONA PATTI [of Thána, 16 tons register, official number 6121, age 24 years], from Bhiwndi to Bombay, with a cargo of grass. On the 4th December whilst the muchwa was sailing out of Thána creek, the tindal finding that there was not sufficient water to get out anchored her between the Kulwa and Chandni Railway bridges; at 6 P.M. a strong easterly wind setting in the muchwa dragged her anchor, and was driven on to a rock and heeled over; the cargo was all washed out of her, and being filled with water she sank. She was subsequently recovered with little or no damage. The cargo was all lost, value R180. The crew, 7 men, saved themselves by jumping overboard.

343. The British iron ship BERKSHIRE [of London, 1,472 tons register, official number 56906], from Point de Galle to Chittagong with ballast. The master stated that the ship had arrived in the Kornafuli river (Chittagong coast), and was safely anchored at No. 3 buoy to load a cargo of rice for the United Kingdom. On the 6th December, at about 8 P. M. the flood-tide was making, and the brig *Akhikal Bahar* in swinging came into collision with the *Berk-*

shire, the former vessel's jibboom striking the ship's starboard rails, thereby causing some slight damage to both vessels. No cargo on board. No loss of life. (The casualty was unavoidable, being caused by strong tides which prevailed at the time.)

344. The British Indian wooden brig AKHIKAL BAHAR [of Chittagong, 144 tons register, official number not reported], from Narainganj to Chittagong, with a cargo of jute. On the 6th December the brig was at anchor close to No. 3 mooring buoy in the Kornafuli river (Chittagong coast), for the purpose of going alongside the ship *Amyone* to discharge her cargo early the next morning. At 9 P. M. whilst swinging to the flood tide, she fouled the ship *Berkshire*, doing slight damage to both vessels. No loss of cargo. No loss of life. (The casualty was unavoidable, being caused by strong tides which prevailed at the time.)

345. The British iron screw steamer NEERA [of Glasgow, 199 tons register, official number 80416], from Bombay to Cutch Mándvi, with passengers and a general cargo. At 3 A.M. on the 10th December the steamer was proceeding along the Káthiáwár coast, going to the westward, whilst the padow *Ramprasad* was sailing in the opposite direction; it was a hazy morning, and the padow had no light burning, but just 1½ miles from Diu head light-house the tindal stopped the steamer and went ahead slow, when at 4 A. M. the *Neera* came into collision with the *Ramprasad*, slightly grazing along her port side. After the accident the tindal of the steamer hailed the padow, asking whether she had sustained any damage and whether any help was wanted, also to come and take off one man who had climbed on board the steamer; the answer he received was that no damage was done and no help was required, and that he could land the man at any port he wished: the padow then proceeded on her way. This man was subsequently landed at Porbandar. Value of damage to the *Neera* and her cargo not reported. No loss of life. (No official report of the casualty reached this Department, and the above details were compiled from private sources.)

346. The British Indian padow RAMPRASAD [of Bulsár, 23 tons register, official number 951, age 26 years], from Porbandar to Bulsár, with slabs of stones. On the 10th December the padow was proceeding along the Káthiáwár coast going to the eastward, and at 4 A. M. when one mile and a half from Diu head light-house, was fouled by the steamer *Neera*. Value of damage to the padow, ₹250; cargo worth ₹60 was lost. No loss of life. (The cause of this collision was attributed to the tindal of the padow not exhibiting lights.)

347. The British iron screw steamer CASTLEDALE [of Liverpool, 1,532 tons register, official number 86270], from Calcutta to Dundee; with a cargo of jute. On the 12th December the steamer when off the S.W. coast of Ceylon (exact position not known), met with an accident to her machinery, the piston having broken; cause not reported. She put into Colombo for coaling and repairs. On the 23rd December she proceeded from Colombo after repairing the damage. Value of damage to the steamer and cargo not reported. Value of damage to the machinery, ₹3,950. No loss of life. (No official report of this casualty reached this Department, nor was any information received from the Marine authorities, Colombo; the above details were compiled from private sources.)

348. The Norwegian wooden barque FLOKE [of Stavanger, 335 tons register, official number not reported], from Calcutta to Port Natal, with a cargo of rice. On the 12th December the barque, in charge of a pilot and without steam, was proceeding down the Hooghly river. At 7-25 A. M. the barque was tacking under sail during the second quarter of the ebb-tide, and in attempting to stay her above No. 5 crossing mark at Moyapur, the vessel hung in stays owing to an eddy-tide, and whilst being brought up she tailed the flat below

Moyapur creek. On the pilot "lighting to" chain, the *Floke* immediately swung clear, after which the vessel safely proceeded to sea. She was aground for a quarter of an hour. No damage to the barque. No loss of cargo. No loss of life. (The casualty was unavoidable, inasmuch as it was caused by the vessel missing stays when caught in an eddy-tide.)

349. The British iron screw steamer KARAMANIA [of Barrow, 2,044 tons register, official number 83989], from Liverpool to Calcutta *vid* Suez canal, with a general cargo. The steamer left Liverpool on the 7th November, with a general cargo, but no passengers; she was properly equipped, and there were on board the latest Admiralty charts of the East coast of India, also the latest edition of Taylor's Sailing Directory. There were on board five compasses—one being kept on the upper bridge and the other on the wheel-house, the third on the lower bridge, and two others by the after steering wheel; the master stated that all the compasses were in good order, and he steered by the standard compass, which was Macgregor's patent, and they were last corrected in February 1883 when in the Clyde; but they were tested daily by all the officers on watch as well as himself. The vessel steered from the upper bridge by steam, and steered very well. There were two chronometers, both were in good order, and were last rated at Glasgow on the 3rd November, just four days before leaving Liverpool on the present voyage, but they had subsequently been corrected, when off Cape Comorin, on the 8th December. The steamer arrived safely at Colombo on the afternoon of that day and left that port on the 10th, at half past 2 in the morning bound to Madras and Calcutta. She then drew 25′ 3″ aft and 20′ 6″ forward; she proceeded all well until the 12th of the same month. At noon of the 11th her position by observation was latitude 7° 49′ N., longitude 82° 04′ E., and the next day at noon the vessel's position was determined by observation, and was stated to be 11° 23′ N. latitude, 81° 18′ E. longitude, the course then steered by the standard compass was N.W. by N. ¼ N., magnetic, the deviation being about 1° 20′ easterly. The master stated that he steered different courses when he left Colombo in order to round the island of Ceylon. At 3-19 P.M. the master got observations by azimuth, which placed the vessel in latitude 11° 53′ N. longitude 81° 0′ E., and from this position the Madras Fort light-house bore N.W. by N., then distant 85 miles. On that same afternoon the leadline was measured and marked afresh, and was coiled up ready for use. There was a patent log on board to ascertain the distance run and a hand log which was generally used. The course steered at noon on the 12th was continued up to 6 P.M., when it was altered to N.W. by N. ½ N. by the magnetic compass, which latter course was kept until the vessel stranded at 10-45 P.M. The weather at that time was fine and clear and the sea comparatively smooth, and the moon was just setting; the coast was soft and sandy and a little surf was running, they had previously experienced a strong current setting to the South and East, the wind being on the starboard bow. From noon to the time of the accident the speed of the vessel was reckoned to be about 10 knots per hour. At 8 o'clock that night the jib and staysails were set. At that time there were the third officer on the bridge, one quartermaster at the wheel and one man at the forecastle head keeping a look-out. One of the quartermasters deposed that he went on watch at 8 P.M., and two hours afterwards he was told to go to the wheel and ordered to steer the course N.W. by N. ¼ N., which course was maintained up to the moment the casualty occurred; the third officer positively stated that at 8 o'clock on the night in question he relieved the first officer on the bridge and received the course N.W. by N. ½ N., which course he never altered. After being an hour on watch he stated that he saw, through the night glasses, what appeared to be land a long way off on the port beam, and immediately reported it to the master. The man at the wheel swore that at 45 minutes past 9 P.M. it was a bright moonlight night, and he saw land on the port beam

which had the appearance of islands, but could not form any idea as to how far it was, and did not report it to the third officer, who was then on watch on the upper bridge. At 10 P.M. the master went on the bridge and sighted a peak which he took to be Tripalore hill; he laid down that bearing at the time on his chart, and considered that the steamer was 20 miles off the coast. The master on leaving the bridge directed a good look-out to be kept for the low land and went into the chart-room to consult his chart. On looking at the chart he found that the vessel's position coincided with his calculations, and judged that it placed her at a distance of 20 miles. No orders were given by the master to ease the engines or as regards the lead. The man at the wheel stated that at 10-15 P.M. five bells struck and the look-out man called out "all's well"; almost a quarter of an hour afterwards he felt three slight bumps, and at once ran out of the wheel-house, exclaiming "Good God! the ship is ashore." As soon as he got out of the wheel-house he looked up and saw no one, the third officer had left the bridge, but he did not know when. On this the master rushed out of the chart-room and immediately went on the bridge and ordered the engines to be reversed full speed astern, but the steamer remained fast and the staysails and the jib were then hauled down; soundings were taken round the vessel; 20′ were found forward, 27′ on the starboard side of the bridge, and 23′ aft. The whole of the crew were at once mustered, the boats got out, and a 15 cwt. stream anchor was at once laid out from the starboard quarter and hove tight, and they also tried to back the vessel off with the aid of the engines, but without avail; at three-quarters flood the same anchor was run out a second time with catamarans, rafts, and life-boat, but it came home again. Subsequently a heavier stream anchor of 18 cwt was laid out with 120 fathoms of wire rope which held for a little time, when the 15 cwt stream anchor was carried out again, backed by a 7 cwt kedge from the port quarter. In the meantime the crew began discharging cargo from No. 5 hatchway into Native boats whence they were landed on shore, and at 2 A.M. on the following day (the 13th) the engines were kept going full speed astern at intervals with a view to try and back her off, and which were continued all that day up to 7 P.M., but with no good results. At 3 A.M. the master sent the third officer ashore to Chingleput, 12 miles inland, whence he telegraphed to the Agents at Madras for assistance; the Indian Government steamer *Canning* arrived on the spot with coolies and gave willing assistance with her officers and crew. The master finding that the anchors were holding, and it was raining heavily, and a strong surf running, ordered the crew to stop discharging cargo and to rest for the night. At daybreak it was ascertained that the *Karamania* was aground on the dangerous outlying patches of a rock to the northward of the Tripalore reef, nearly 24 miles South of Madras (Coromandel coast). At noon an unsuccessful attempt was made with the assistance of the *Canning*, when it was found that the propeller had fouled something and the engines had stopped; the strong surf running then set the steamer farther upon the reefs. On the morning of the 14th, some more cargo was again discharged, when a little past 3 P.M., it having been observed that the anchors were coming home and the vessel was drifting farther on to the reefs, they discontinued lightening her of any more cargo, and carried the anchors out again, and at 9 P.M. got a strain on them; slow steam was maintained throughout the night, and efforts to get her off were continued, but without success, when the engines were stopped altogether. At dawn the next day, a spare bower anchor was run out on rafts and catamarans with 15 fathoms of cable and a wire hawser attached to it and hove taut, but at 6 P.M. on the 16th, in consequence of bad weather and the heavy surf, the wire on the bower anchor was carried away; the next day, after they had repaired the damage to the wire hawser it was hove taut, but as it showed signs of giving way, 90 fathoms of cable were payed out and shackled on the anchor. On the 19th

the master veered out 60 fathoms more cable and hove it taut with the windlass, but at 7 P.M. the stern mooring pipe giving way, slacked and backed it round the stern bitts and hove it taut again; when endeavouring to heave her off the rudder post was carried away; an hour afterwards the Government steamer *Madras* was dispatched from Tuticorin, and on the following day she took the starboard bower anchor and laid it out with 60 fathoms of chain. At 1 P.M. on the 21st the steam-tug *Clive* from Calcutta arrived and the crew began discharging cargo from all the hatches and taking it on shore in Native boats. Endeavours were made in the afternoon, with the aid of the *Clive* and *Madras*, to tow her off but unavailingly, after which the latter steamer left. On the 22nd, efforts to float her were continued up till 11-30 A.M. on the 23rd with the assistance of the *Clive* and *Canning*, but to no purpose, the crew still continued discharging. The steamer *Canning* then returned to Madras, and the same evening left for Rangoon, for the purpose of taking stores and the detachment which escorted the ex-King of Burma to Madras. On that same afternoon the *Clive* managed to move the *Karamania* out a few feet, after which she stopped as the water was found to be falling; at midnight she was taken in tow again and was moved out 40′ more. Finally at half past 8 o'clock on the morning of the 24th, after having discharged 600 tons of cargo the steamer floated; the crew thereupon immediately slipped both anchors with 150 fathoms of cable, and with the help of her engines she proceeded into deep water, where she was safely anchored in 8 fathoms; she was aground for 12½ days. The master then found that the vessel's sternpost was broken at the 21′ mark, and again 2½′ forward from the heel; one blade of the propeller gone and a few rivets in the plates loose; the wells were sounded and she was reported to be making no water. A little before 10-45 o'clock on the night in question the third officer feeling doubtful as to the vessel's position, went below to call the master as also to ascertain whether the steamer was near the land, but not finding the master in the chart-room he returned to the lower bridge and ordered the engines to go full speed astern; shortly after the telegraph was rung, the vessel struck the ground. The master affirmed that the first time he observed land was at 10 P.M. on the 12th at a distance of 20 miles, and the reason why he did not order the lead to be hove was that, from the observations he got that afternoon, he felt certain of his position, and the land seemed so far distant. At half past 10 o'clock the bells were struck, but the look-out man never reported land, neither was any sound of the surf heard; he immediately came out of the chart-room after the telegraph was rung, and on going on the bridge he expressed surprise at the steamer being ashore, whereupon the third officer told him that the land he had seen was either a shadow or a squall coming up. The next morning (the 13th) the low land was plainly visible, and the high land was also discernible in the distance on the port quarter, when at that same time the sound of breakers were heard. The master accounted for the accident by the strong unexpected current; that he had never been on the Coromandel coast before; and that he was aware that there was a current running to the southwards, but he was misled by having a S.E. set the previous day. The third officer stated that had he ported the helm at the time be rang the telegraph the vessel would not have floated but on the contrary she would have bilged. The look-out man stated that he relieved a quartermaster on the look-out on the forecastle head at 8 o'clock that night and got no orders whatever. At 20 minutes to 10 P.M. he saw the high land for the first time nearly 7 miles off, and he sung out "land on the port bow," thereupon the third officer, who was on the upper bridge, replied "all right." No breakers were seen or heard at any time before the casualty, but the land remained in sight for half an hour, and then disappeared altogether as the moon went down. At 10-40 P.M. a darkness spread over the land which the look-out took for a squall, but made no mention of it to the officer on watch.

The quartermaster, who was at the wheel from 8 to 10 P.M., stated that the course he got was N.W. by N. ¼ N., and which course was never altered; he saw a heavy squall which appeared to be land, but did not report it to any one. At 10 o'clock another quartermaster went to the wheel and received the same course to steer, which he did until the vessel struck on the reefs. The other quartermaster stated that at 10-45 P.M. he was taking his coffee below when he heard the man at the wheel shout out "Good God! the ship is ashore;" he thereupon ran and rung the telegraph to stop on his own responsibility; the third officer then came on deck, after which he cast the lead and got 4½ fathoms soft mud abreast the bridge on the starboard side. The fourth engineer stated that he went on watch that night at 8 o'clock, and got instructions from the second engineer to call the chief when the telegraph rang. At 35 minutes past 10 P.M. the engines were ordered to be stopped; this was done, and 3 or 4 seconds afterwards the telegraph rang to go full speed astern, and after carrying out that order he went up and called the chief engineer, and the steamer just then grounded; the engines after going full speed astern for three-quarters of an hour were stopped. Of the cargo only one case of copper and a few bundles of tie-bars had been lost overboard. On the morning of the 25th, she got underweigh in tow of the tug *Clive* and anchored that same afternoon outside the Madras harbour. On the 27th after discharging all the Madras portion of the cargo, she proceeded towards Calcutta, and on the 31st arrived at the Sandheads whence she was taken in tow of the tug *Defiance* in addition to the *Clive* and eventually arrived in the harbour on the afternoon of the 2nd January 1886, and anchored off No. 5 Jetty. On the morning of the 4th a special survey was made by a Marine Surveyor afloat, and it was reported that the hull showed no sign of strain or damage to any part above water, but the rudder-post was broken at the 21′ mark, and seemed to be hanging to the two lower braces. He therefore recommended that the cargo be discharged with all possible speed, and that the vessel be docked for farther examination; the several articles such as coils of Manila and Europe hawsers, line, &c., anchors, chains, deep-sea lead line, the patent log line, hand lead line, kedge anchors, accommodation or side rope ladders, &c., said to be damaged, lost, cut and destroyed to float the vessel when on shore, to be replaced with new. On the 13th the steamer was put into the Lower Union dry dock, Howrah, and on the 14th, 15th, 18th and 19th the Surveyor to Lloyd's Agents accompanied by a Marine Surveyor examined the vessel and found the stern frame broken through at the lower part in the aperture between the sternpost and rudder-post, and, the latter broken through at the 21′ mark, the broken part hanging to the two lower braces; the lower part of the rudder-post was bent over to starboard, nearly 2½″ from the lower brace downwards; the lower end of the rudder was bent over to port from the 21′ mark downwards; and the heel pintle broken off at the neck and the broken part left in the heel socket; the rivets in the after end of the keel were all started and loose from the sternpost to 10′ forward, and the rivets in the sternpost started and slack from the keel to the middle of the second plate from the keel; the lap rivets on the upper edge of the garboard strake plates on each side were all started, loose and broken from the sternpost forward 11′, and the frame rivets in the after ends of the after length of garboard strake, and the strake above it on each side, were started and broken; several rivets in the sternpost higher up seemed to have started; the keel rivets were started in many places all along the keel, and several of the garboard strake butts were weeping; one blade of the propeller was broken off at the boss and lost; the tip of another blade was broken off, and a third had a small piece broken off the top; and the stern mooring pipe on the port side was broken and the plate injured, but the bottom plating did not appear to have been injured anywhere on either side. They recommended the undermentioned temporary repairs to be done to enable the vessel to

proceed home with a full cargo, and there to be put into dry dock and dealt with as might be considered necessary, *viz.* :—the broken part of the rudder-post to be taken off, straightened and set up in position as before; the lower break to be secured by an angle clamp 7′ or 8′ long fitted on the lower part and on one side, and a separate plate on the opposite side securely fastened with bolts and nuts. As a reliable iron forging could not be made here without much waste of time it was advised that the clamp be made of gun metal, cast from a pattern made to fit on the broken part. The break at the 21′ mark where the rudder-post was flat and straight, to be secured and straightened by forged iron plates fitted on each side of the post over the broken part, well fastened with bolts and nuts; the plates to be the whole breadth of the rudder-post and 3″ thick, made of the best malleable iron, the fastening bolts to be of the best iron, turned and fitted; the fastening bolts of the lower clamps should also be of the best malleable iron, turned and fitted, the head and nuts to fit close on the plate and clamp; the defective rivets in the upper lap of the garboard plates being all within the after compartment abaft the bulkhead, and under the cement, any leakage from them could not get into the main body of the vessel. The Surveyors were therefore of opinion that it would not be necessary to remove them at Calcutta; but to make the lap secure for the passage home it was advised that lap-bolts be put in between every second or third rivet, and a thin plate put over the lap rivets fastened to the garboard plates with tap-bolts to prevent any of the defective rivets from dropping out. All the defective rivets to be removed and replaced with sound rivets; the rudder to be straightened, if possible without unshipping it, and a new heel pintle clamped on to the lower part and rivetted through the rudder stock and the rudder braces re-rivetted as before; a new stern mooring pipe to be fitted in the port quarter after the plate was repaired; and a new propeller blade to be fitted in lieu of the one lost. They were of opinion that the abovementioned repairs, when properly executed, would make the defective parts sufficiently strong and rigid to enable the steamer to make a passage to England with safety. The Surveyors from time to time attended the repairs being done by the British India Steam Navigation Company to the *Karamania* in the dock between the 18th January and the 10th February. They certified that the damage caused to the vessel by the stranding on the Coromandel coast in December whilst on a voyage from Liverpool to Calcutta had been temporarily repaired in such manner as to ensure the security of the vessel on a passage from this port to England with a full cargo, and that the steam-ship *Karamania* was in their opinion a first class insurance risk for the voyage home. Value of damage to the steamer, R51,900; cargo, R53,334. No loss of life.

[A Special Court of Inquiry was held in the office of the Port Officer, Calcutta, by the Chief Presidency Magistrate on the 14th, 15th, and 22nd January 1886, under the provisions of section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances attending the stranding of the above vessel to the southward of the port of Madras. The Court recorded that on the 14th, having assembled pursuant to citation, the papers and correspondence relating to the case were read and filed. The Government Prosecutor then briefly opened the case, after which the witnesses were examined, and on conclusion of their evidence an adjournment took place until the 15th for the purpose of considering whether a charge should be drawn up against any of the officers of the vessel. On the Court re-assembling on that day the Government Prosecutor stated that he closed his case, and after half an hour's deliberation the Court intimated that they would send in a report to the Local Government. The Court therefore adjourned to the 22nd, in order that they might consider their finding and order. The Court was convinced by the evidence in this case that the master navigated the steam-ship *Karamania* with

due care from the time of leaving Liverpool until the afternoon of the 12th December. On that date the vessel's position was ascertained by observation of the sun to be 11° 53′ N. latitude, and 81.°0′.E. longitude; this, on the chart, gave the bearing of Madras light-house N.W. by N., distant 85 miles. The master having every confidence in the correctness of his observations, shaped his course by the standard compass N.W. by N. ½ N., and having on the previous day experienced a current running to the S.E., he considered himself safe in assuming that the course he was steering would carry him without danger into the Madras roadstead. At 10 P.M. on the 12th, high land was sighted (no low land being visible), and a bearing was taken; the master took the land to be the Tripalore hill, and estimated his distance therefrom at 20 miles. At 10-45 P.M. the quartermaster called out that the vessel was ashore; the engines were stopped and reversed and anchors laid out, which proved of no avail. In the morning it was discovered that the *Karamania* stranded 24 miles South of Madras, and she remained there from that time until the 24th of the same month, when she got off with the assistance of the tug steamer *Clive*, which had been sent to her aid from Calcutta. A good deal of cargo had to be discharged and anchors laid out before the steamer could be floated. After a careful consideration of the evidence the Court were of opinion that the master committed a grave error in having neglected to verify his assumed position on the chart by a cast of the lead immediately on sighting the high land on the 12th, more especially as the land was not visible until 10 P.M. The Court were also of opinion that had the third officer kept a good look-out the low land would have been seen before the vessel struck the ground, and in all probability the accident might have been avoided. The Court observed that the third officer stated in his evidence that the engines were going astern five minutes before the casualty happened, but he made no attempt to alter the helm and change the course. The statement of that witness, the Court considered, was most unsatisfactory, and they placed no reliance on it. From the evidence of the look-out man it appeared that he reported land in sight on the port bow at 9-40 P.M. and the Court found no reason to doubt him when he stated that the third officer answered "all right," but took no farther notice. Again, the quartermaster, who was at the wheel from 10 o'clock on the night in question, also stated that he saw the land 10 minutes before the accident occurred. The Court observed that it was worthy of comment that no report of land being in view appeared to have been made to the master of the vessel, although he seemed to have been on deck, and in and out of the chart-room, during the whole of the first part of the night. The Court considered that the conduct of the third officer was deserving of severe censure for his gross carelessness whilst in charge of the watch. The Court attributed the stranding of the *Karamania* to the strong southerly current which ran parallel to the shore at that time of the year, and of which the master was unaware. The master was quite a stranger on that coast, and calculated on the S.E. current that he had experienced on the previous day continuing. The Court found that the log-books of the master and first officer were kept in a creditable manner, and that the master and his officers made every exertion to get the steamer afloat again by landing the cargo and doing all that it was possible to do. The Court, taking into consideration the good character the master had received from the owners' of the vessel as a careful shipmaster during a period of nine years, and under all the circumstances of the case, considered it not necessary to deal with his certificate. The Court severely censured the master and the third officer for not having used the appliances they had on board on the night of the accident; but no punishment was inflicted. The master's certificate was returned to him.]

350. The British Indian muchwa DARIA DAULAT [of Thána, 23 tons register, official number 6356, age unknown], from Kalyán to Bombay, with a cargo of grass. At 8 P.M. on the 16th December the muchwa grounded on a

rock near the Chandni Railway bridge, Bombay harbour, by the negligence of the tindal. She immediately listed over on one side when the water came over the bulwarks and washed away the cargo. The muchwa was subsequently recovered, and was found to have sustained damage to the extent of ₹30. The cargo was all lost; it was valued at ₹150. The crew, 9 men, saved themselves by swimming.

351. The British iron paddle steamer TYRONE [of Barrow, 250 tons register, official number 28499], from Calcutta to Dhámrá and Chándbali with a general cargo and 200 passengers on board. The master stated that at 5-40 A.M. on the 16th December the steamer, under his charge, cast off from the swinging buoy and proceeded down the Hooghly river on the flood-tide at half speed. When abreast Fort point he observed the steam-launch *Hansashari* steaming up the river close to the swinging buoys well on the starboard bow; but there being at that time a cargo boat pulling across the *Tyrone's* bows from the Calcutta to the Howrah shore, the helm was starboarded and the steamer passed astern of the cargo boat; the *Tyrone* had hardly cleared the cargo boat when the steam-launch altered her course and tried to cross the steamer's bow with her helm a-port. The master seeing that the launch would not clear the steamer, he stopped the engines immediately and backed full speed, but the *Hansashari* still came on without slackening her speed until she struck the *Tyrone*, stem on, on the starboard bow nearly 15' abaft the stem, the launch being at right angles with the steamer when the collision occurred, her engines were not reversed till after the accident. The damage done to the *Tyrone* was a large hole in the starboard bow, three plates stove in, and three frames broken. The master on ascertaining the extent of the injury returned with the vessel to her moorings. The master called a survey on the vessel and after examination and repairs she filled her cargo and resumed the voyage. Value of damage to the *Tyrone*, ₹3,025; cargo, ₹2,000. No loss of life.

[A Departmental Committee of Inquiry was held in the office of the Port Officer, Calcutta, on the 29th December, to inquire into the cause of the collision which occurred between the steamer *Tyrone* and the steam-launch *Hansashari*—the former whilst in charge of a licensed steam-tug pilot, and the latter in charge of a certificated Native engine driver—in the Hooghly river on the early morning of the 16th December. The Committee recorded that, having assembled pursuant to citation, the papers and correspondence relating to the case were read and filed, after which the witnesses for and against the prosecution were examined, and on conclusion of their evidence the Committee retired in order that they might consider their decision. It was shown in evidence that the master of the steamer *Tyrone*, at 5 o'clock on the morning of the day in question, weighed anchor, and a quarter to 6 A.M. everything being clear in the harbour, she proceeded with the flood-tide, after whistling, from the swinging buoy, on her way down the Hooghly river. At that time it was day-dawn, the buoys of the vessels in the moorings were distinctly visible, and the steamer had her masthead and side lights burning brightly. The *Tyrone* was going at the rate of 5 miles an hour, and when a little above Fort point, in mid-stream her master sighted the steam-launch *Hansashari* close to the swinging buoys on the starboard bow steaming up the river, but he only made out the cargo boat which was being towed on the starboard side, and it was only discovered that the vessel was a steam-launch when she ported her helm. The helm of the steamer was starboarded to avoid fouling a cargo boat which was pulling across her bows from the Calcutta to the Howrah shore; but as soon as it was found that the vessel on the starboard bow was a steam-launch, the *Tyrone's* engines were stopped and backed astern full speed. The *Hansashari*, which was then 300' off, ported her

helm with a view to cross the steamer's bow; she had no side lights, but there was a bright light burning at her flagstaff forward. The master of the steamer stated that he could have seen the launch's starboard side light had there been any on the paddle box notwithstanding the boat she was towing alongside. The launch after having ported her helm went straight on, heading for the steamer's bow. The *Tyrone* did not get sternway but was stationary in the water nearly in the centre of the channel, when at 5-55 A.M., the *Hansashari* struck the steamer on the starboard bow. After the casualty occurred the master of the steamer heard a man call out to back her, and just then the launch reversed her engines. There was no whistle at any time to attract the attention of those on board the launch, because the master considered there was then sufficient daylight, but no smoke was visible from the *Hansashari's* funnel; that had the launch maintained her first course, there would have been no danger of a collision; that he drew the attention of the first officer and the chief engineer to the launch's movements, saying "that boat will be into us;" that at the time of the accident the steamer's helm was amidship; and that when she backed her head fell off towards the Calcutta moorings. The chief engineer's statement was that, on that morning there was sufficient daylight for safe navigation, and objects were distinguishable at a distance of 500 yards. The *Tyrone* was steering down a little to the eastward of mid-channel, going 3 miles per hour, and whilst at Kuddumtola ghât, his notice was drawn by the master to a vessel moving across the river on the Howrah side of the channel near the swinging buoys; the launch was 250 yards off with a masthead light, evidently steaming full speed across the river towards the Calcutta side; the *Tyrone* stopped and backed her engines, when her head fell off towards the moorings. The first officer said that when the vessel started from the buoy, objects a quarter of a mile off in the river could not be distinctly discernible as it was hazy, and the *Tyrone* was steaming easy in mid-channel at the rate of 2 to 3 miles an hour. The master and the chief engineer both stated that they did not hear the launch whistle, whereas the first officer said that the launch when 50 yards distant sounded her whistle and then ported the helm. The master, after ordering the engines to be put full speed astern, remarked to the first officer that there would be a collision, and no sooner had the first officer got to the forecastle than the casualty happened, and he then heard somebody on board the launch cry out "back her." The story on the other side, as related by the serang, was that the *Hansashari* left her moorings at Shibpur at 5-30 A.M. on the 16th and steered towards the Calcutta shore, going close to the moorings' buoys on that side of the river for the purpose of embarking passengers for Ulábaria at the Outram landing stage. The launch was towing an ordinary sized cargo boat, laden with coal, on her starboard side, and had three lights burning—one being at the masthead, and two others a red and a green light on the bridge. When the launch was in mid-channel a little above Fort point, off the first tier of moorings, the serang first saw the *Tyrone's* green light above the Kuddumtola ghât on the port bow, and later on he saw both the red and the green lights, when he sounded his whistle, but the *Tyrone* approached closer across the launch's bow, and the serang put the helm to port. Subsequently, on finding that the *Hansashari* could not port her helm any farther because of the buoys in the moorings, he ordered the engines to be stopped and backed full speed; the launch went astern through the water for four minutes, when nearly in mid-channel the steamer came into collision with the launch; the *Hansashari* was not making much smoke in consequence of her being high pressure. The man at the wheel (a seacunnie) stated that the *Tyrone* first showed her red light when the launch had passed the swinging buoys in the channel; the steamer at that time was above Kuddumtola ghât, and was heading right for the launch, but directly her three lights were seen

he put the helm a-port a little, but notwithstanding she still approached when the engines were eased; the *Tyrone* was on the *Hansashari's* port bow angling across the river, but on the two vessels nearing each other the launch's engines were eased quite slow and then stopped, after which the accident occurred. The Committee after carefully weighing the matter, there being no farther witnesses to call, were of opinion that the collision of the steamer *Tyrone* with the steam-launch *Hansashari* on the morning of the 16th December was caused chiefly from the fact that there was hardly sufficient daylight at the time to distinguish objects, and that those on board the steamer *Tyrone* did not discover the nature of the vessel they were approching until the steamer was dangerously close. The Committee observed that the evidence regarding the lights shown by the launch was most conflicting, but as the morning was hazy and the mist lay thickest on the surface of the water, the lights of the steam-launch *Hansashari*—being a low vessel—might not have been seen. The Committee considered that the evidence concerning the backing of the engines of the steam-launch was unreliable, as from the nature of the damage done she could not have been moving astern through the water at the moment of collision. The Committee were of opinion that under the circumstances both vessels contributed towards the accident.]

The Port Officer recorded that the Committee were right in having attributed the accident in part to the comparative darkness which prevailed at the time of the casualty, and in having arrived at the conclusion that both vessels were to blame for moving in the port before it was light enough to see clearly.

The Lieutenant-Governor of Bengal accepted the opinion of the Port Officer and the finding of the Departmental Committee of Inquiry that the collision was due to the darkness at the time of the accident, and which prevented the vessels from sighting each other.

On the 21st December the Deputy Conservator to the Port Trustees criminally prosecuted the master of the steamer *Tyrone,* under section 7 of Act XII of 1875, before the Chief Presidency Magistrate, for plying his vessel with 200 passengers and with being underweigh after dark, or before daylight, to wit proceeding from the mooring buoy off the Police ghât at 5-30 A.M. on the 16th December, and steaming down the Hooghly river in contravention of rule 9 of the Port Rules. He stated that he prosecuted on information received, knowing nothing of the facts of the case himself. The Superintendent of the River Police deposed that at 35 minutes past 5 A.M on the 16th whilst he was standing on the Police ghât pontoon, he saw the *Tyrone* leaving her mooring buoy; the vessel had her side and masthead lights lit, and was almost abreast the landing stage; it was very dark at the time, and only three stars were visible. This witness was cross-examined by the pleader on behalf of the accused who pleaded not guilty; the next witness was a Native Police officer, who was also cross-examined, after which the case closed for the prosecution. The pleader on behalf of the defence thereupon submitted that, when the *Tyrone* left her swinging buoy there was sufficient light to prevent accidents, adding that it was the flood-tide then. The Court did not think that that would affect the question. The pleader stated that there was evidence to show that vessels could be distinguished clearly, there being quite enough light to do so; the object of the Act being simply to prevent accidents. The Court asked if that were so what would be the good of the side lights? It was a singular fact that the steamer was at anchor with side lights. The Superintendent of the River Police thereupon informed the Court that there was an accident, the *Tyrone* having fouled the steam-launch *Hansashari.* The pleader then stated that the master was not aware of the fact that there were side lights burning on board the steamer; one of the officers of the vessel had put them on the side. After a few other witnesses for, and against, the prosecution were examined, the Court

being satisfied with the evidence held that the master of the *Tyrone* did leave the mooring buoy before daylight, and sentenced him to be fined ₹50.

352. The British iron steam-launch HANSASHARI [of Calcutta, 100 tons register, official number 10208], was employed as a Ferry steamer in the Hooghly river. The serang (a Native certificated engine-driver) stated that he weighed anchor at 5-30 A.M. on the 16th December, the weather being fine and clear, from off the Calcutta Steam Navigation Company's workshop, Shibpur, to proceed to the Outram landing stage to embark 200 passengers for Ulábaria. When proceeding across the river at an angle the serang observed the steamer *Tyrone* steaming down, he thereupon ported the helm and went close to the mooring buoys. He stated that he could not go any closer to the shipping and the buoys, but the steamer still proceeding down on the launch, he stopped the engines and backed full speed, and notwithstanding, the *Tyrone* came into collision with the steam-launch *Hansashari*, striking her on the bow, thereby doing her considerable damage. The shock to the steam-launch caused her to bump against the coal barge, thereby seriously damaging her, thereupon the serang towed the barge to Shibpur and beached her on the sands as she was leaking badly. He stated that he had both his side and masthead lights burning brightly, and that they were only extinguished after he had anchored. The *Hansashari* had 4′ of her stem bent in; six plates (three on either side) bent and torn off; one angle iron stanchion bent; about 12′ of the covering board destroyed; both hawsepipes and the deck forward started; 2 stanchions on starboard side torn off; 9′ of angle iron of ridge broken off; one ridge pole broken in two pieces; forward flagstaff broken; and about 18′ of ridge planking beneath awning carried away. The port bow of the coal barge was stove in; the upper portion of stem broken; the forecastle deck started, carrying away a great portion of her covering board on port side; and a plank on her starboard side. Value of damage to the *Hansashari*, ₹600; damage to the coal barge not reported. No loss of life.

353. The British Indian padow DARIA DAULAT [of Tárápur, 6 tons register, official number 866, age 25 years], from Tárápur to Bassein with fishing nets. At about 5 A.M. on the 18th December, when about 8 miles seaward of Tárápur, the padow met with a sudden squall; the tindal thereupon made sail and tried to steer her towards land, but the heavy sea broke over her and she capsized. The padow was afterwards recovered and towed into Tárápur. No damage to the *Daria Daulat;* cargo all lost, value ₹170. The crew, 8 men, were picked up by a passing muchwa.

354. The British iron brig SARSUTI [375 tons register, belonging to the Bengal Government], was employed on Pilot duties at the Sandheads. On the 20th December, whilst the brig was lying at anchor at the Sandheads, 5 miles N.W. by N. ½ N. of the Eastern Channel light-ship, she experienced a heavy sea and as the vessel commenced pitching considerably, the chain suddenly parted on the windlass at 60 fathoms, carrying with it the anchor. No damage to the *Sarsuti*. The anchor and chain were not recovered, but they were replaced by new ones at a cost of ₹1,378; the value of the lost articles was estimated at ₹774. No loss of life.

355. The British iron barque HENGIST [of Liverpool, 1,125 tons register, official number 28603], from Cardiff to Rangoon with a cargo of coals. On the 22nd December the barque was lying moored with both anchors down below the Brooking street wharf in Rangoon river (Burma coast), discharging her cargo, when at 2 P.M., in swinging to the flood-tide her heel touched the bank, but she came off within a few minutes and was subsequently shifted to another berth. No damage to the barque. No loss of cargo. No loss of life. (It was reported that the accident was due to an extension of the sand into the channel.)

356. The British iron screw steamer PACHUMBA [of Glasgow, 544 tons

register, official number 73804], from Bombay to Basra, *viâ* Sind and Persian Gulf coast ports with a cargo of rice, piece-goods, tobacco, &c., and 25 passengers on board. On the 15th December the steamer left Bombay and touched at four places on the Káthiáwar coast, also at Gwádar, Maskat and Jáshak. She arrived at Bandar 'Abbas on the 22nd of the same month, and after discharging her cargo, mails and passengers there, she took in other cargo, mails and 77 passengers and left that port at 4-50 P.M., of the same day for Linjah. There were on board the latest Admiralty charts of the coast from Bombay to Kurrachee, and of the Persian Gulf, a chart of the entrance to the Persian Gulf, and a copy of the edition of the Persian Gulf Pilot. She had four compasses on board—one being kept on the bridge and the other near the wheel amidships, the standard compass on the quarter deck, and the steering compass aft. The master stated that all the compasses were in proper order, and he steered by the compass near the wheel, the courses being set by the standard one; they were daily tested at sea after the vessel sailed from Bombay, and there was a daily record kept. The steamer steered well, and the master steered by the compass on the top of the wheel-house. There were two Walker's patent taffrail logs on board, but they were not in good working order. She had four boats all in perfect order and properly equipped; the engines and machinery, being last surveyed at Kurrachee only four months previously, were all in good order. She was in good trim, and drew 14′ 6″ forward and 14′ 7″ aft, her free board being between 4′ and 5′. All went well with the steamer up to the 22nd. On the morning of that day she arrived safely at Bandar 'Abbas and left again at 10 minutes to 6 in the evening. She safely proceeded out of the harbour, and the course then steered by the standard compass was S. 8° E. (S. 10° E., magnetic), and kept on that course till 6-30 P.M., when it was altered to S. 47° W., there being half a degree of error on that course. The hand log was hove at 8 P.M. and showed that the steamer was going at the rate of 8 knots through the water. At 10-20 that night, when Henjám island was abeam, distant three miles, the master reduced the vessel's speed from 8 to 7 knots, because she was going too fast, and he wanted to make Linjah at 7 the next morning; he set the course S. 65° W., magnetic, continuing on that course until 2 o'clock the next morning (the 23rd). At 12 P.M. the hand log was hove again, when it registered 7 knots; the patent log, which had been set at 6 that evening, gave the distance run as 60 miles at midnight. One of the patent logs which was used between Bombay and Kurrachee showed 12 per cent. over the correct speed, but it was subsequently found worse after leaving Kurrachee, so much so, that it could not be relieved upon, and it was the same log which was used by the master on starting from Bandar 'Abbas. At 12 o'clock on the night of the 22nd a fresh breeze was blowing from the N.E., the weather was hazy, but there was no sea on; there was a look-out man at the forecastle head, one man at the wheel, and another about the decks; the master kept the watch on the bridge from 8 to 12 P.M., but he was on deck up and down most of the night, leaving it now and again only to examine the chart. At midnight the master retired, leaving the second officer on watch and giving him orders to call him at 3 A.M., as the steamer would then be abreast Tanbe island, to heave the lead every half an hour, and to give the first officer the same orders when he came on watch at 4 A.M.; the master also left orders that at 3 o'clock he was to be called as usual if he got any soundings. The second officer went on watch that night at 12 o'clock, and received the course from the master of S. 65° W. by the standard compass, and a few minutes afterwards the master requested him to keep the lead going every half an hour, to tell him when he got soundings, and also to keep a good look-out for Tanbe island, and report whether he saw that island. The second officer deposed that at half past 12 A.M. on the 23rd there being a fresh breeze he set the foretopsail; at that time there was a moon, but

it was slightly visible through passing clouds only, it was dark and hazy all round the horizon. At 2 A.M. no bottom was got at 9 fathoms, but half an hour afterwards the second officer got soundings in 6 fathoms, and on farther casts of the lead showing that there was no bottom at 8 fathoms, he reported it to the master, who looked round as customary with his night glasses and noticed nothing unusual in the weather, or any sign of the land; he ordered the second officer to stand on the same course till 3 A.M. At 3 o'clock the lead was hove, and no bottom having been obtained at 10 fathoms, the second officer sent for the master who was lying in bed awake; the master came up in less than five minutes and looked for Tanbe island with his night glasses, but he could not see it as it was hazy. The master supposed that the tide was running three hours ebb, and thinking that the vessel then was four miles to the north ward of the extreme North point of Tanbe island, he changed the course to N. 61° W. (magnetic) by the standard compass. The master on leaving the bridge directed the steamer to be kept steady on that course, and to let him know whether he got soundings at 4 A.M., and went into the chart-room to consult his chart. The lead was kept regularly going, and soundings of 10 fathoms were taken at 4 A.M.; the sea was rising and the wind blowing fresh from N.E., the log was hove and the vessel was found to be going $7\frac{1}{2}$ knots. At 4 o'clock on the morning in question the first officer relieved the second officer on the bridge and received the course N. 61° W. from him, and orders to keep the lead going every half an hour, and to call the master when the vessel got into less water than 10 fathoms; he was informed by the second officer that soundings were obtained at 10 fathoms just then; that the speed was $7\frac{1}{2}$ knots; and that Tanbe island was not visible. It was ascertained that the second officer went aft and reported to the master the result of the casts he had got; the master did not go on deck then, but directed him to tell the first officer to inform the master when he got less than 10 fathoms. The first officer stated that the weather at that time was hazy but dark, there was no moon to be seen, and it continued so up to the time the casualty occurred. At 30 minutes past 4 o'clock the lead was hove and got bottom with 13 fathoms, and at 5 A.M. at 13 fathoms, but half an hour afterwards when 13 fathoms were again reported, the first officer went to see the chart, as he considered the steamer was in the Gut where there were no soundings marked on the chart, and also because the second officer made no remark about the soundings not agreeing with the course on the chart. The master then came on deck, thinking that something might be in sight, when the first officer reported to him the soundings he had obtained; the master thereupon told him to keep a bright look-out for the land, as he considered that the vessel was getting off Linjah, where there was no soundings on the chart, but deep water. At 6 o'clock the first officer got 8 fathoms and reported it at once to the master, who directly afterwards went up on the bridge and ordered the lead to be cast every ten minutes. He positively stated that at 6-10 A.M., when 9 fathoms was obtained, the master directed him to take in the foretopsail and haul in the patent log; at 20 minutes past 6 o'clock just as 8 fathoms was found with the hand lead, a man forward sung out "land ahead," and broken water was observed both by the master and the first officer; the engines were immediately put full speed astern, and within two minutes the *Pachumba* stranded on the sands off Rás Shenas, just South of the port of Linjah (Persian Gulf). The first officer went into the engine-room and left word to keep the engines going as hard astern as possible and returned on the bridge, but finding that the wind was on her starboard side, he got the crew to furl the awnings and to take cargo out from the fore hatch to the quarter deck aft, which resulted in the vessel swinging round. The second officer swore that he felt a shock, and hearing the crew heaving the cargo out of the fore hatch with the steam-winch, he got up and went on deck. As

daylight appeared whilst the second officer was lowering the port life-boat, it got slightly injured by knocking against the steamer's side, and a kedge anchor was got out, but when it got head to sea, and was round the bows, the heavy seas swamped the boat; after several attempts were made to carry it out the kedge was lost. At 7 A.M. the starboard anchor was let go with 15 fathoms of chain out, in order to prevent her driving farther on to the sands. About 9 o'clock, whilst the second officer was landing the vessel's clerk in the same boat to proceed to Linjah for assistance, with a Native passenger, who was acquainted with the roads of the country, a heavy sea struck the boat and broke the gunwale and rendered it useless, whereupon the first officer went ashore in the mail boat with a line, which was afterwards fastened on the beach and was used to haul the boats to and fro from the vessel to the shore. At that time the engines had to be stopped in consequence of the sand getting through the circulating pipes. The seas dashing on board fore and aft, it was at once decided to land the passengers and mails, which was accordingly done, without much difficulty, in the steamer's boats; the passengers and the mails were all located under awnings and tents pitched for that purpose on shore. The Government Agent then arrived with labourers, and the master armed them with the vessel's rifles with the object of protecting the mails and passengers; there was not much surf on the beach to the leeward of the steamer. At noon the engines were started again and were going until the tide left her at 2 P.M. On the night's flood-tide they were kept moving astern full speed up to 3 A.M., on the 24th, when they were stopped as the water was found to be falling. At 11 A.M. the water having risen, the crew commenced jettisoning cargo and hove away on the anchor, and the engines going full speed astern, the steamer began to move off the sands, and at 1-30 P.M., after throwing overboard 344 packages, the *Pachumba* backed off and proceeded to Linjah, her next port of call, where the passengers and mails were re-embarked; she left that port the next day and continued her passage up the Persian Gulf to Bushire and Basra; the vessel neither made any water whilst she was on shore or during the rest of the voyage and up to the time she returned to Bombay. She was aground for 31 hours. On arrival at Basra the vessel was surveyed by the master of the steam-ship *Maude,* and the commander and the chief engineer of H. M. S. *Philomel;* all the cargo was taken out from the bottom, and after a careful examination she was found fit to resume her voyage with the mails, cargo and the passengers; but on her return to Bombay harbour she was put in dry dock and surveyed. On the morning of the 18th January 1886, the Shipwright Surveyor to the port, accompanied by the Engineer Surveyor, proceeded on board the steamer *Pachumba,* lying in the British India Steam Navigation Company's dry dock, in order to make a survey on the bottom of that vessel, she having, when on her passage from Bandar 'Abbas to Linjah, grounded on the sands off Rás Shenas, and during the time she remained on shore it was stated that the steamer bumped heavily on the sands but made no water. After jettisoning about 344 packages of the cargo she was got off. After a careful examination of the hull outside, they reported that they could find no trace of any material damage, but that one or two of the butts were slightly weeping; the lower pintle of the rudder was broken in consequence of its being old and worn; all the gudgeons worn required bushing; and a few rivets near the sternpost slack. The limber boards being down, no examination of the inside of the hull was made, and they therefore advised that the same be removed for inspection. On the 19th and 20th the Surveyors visited the steamer and after a thorough examination all over the inside of the hull, in the coal bunkers, and underneath the sole-plate of the engine, they found the cement in good condition, and showing no sign of having either started or cracked; the coal hold bulkhead being old and thin, had bulged some 5′ from the flooring up to a height of 9′; and the crank pin of

the after engine badly flawed on both sides of the fillet to be taken out and a new crank shaft fitted in, which would cost about R15,000. The Surveyors were of opinion that the damage sustained by the vessel had not been serious; the slight repairs ordered were being rapidly pushed forward, and the steamer was expected to leave the dry dock within another two or three days. As a precautionary measure they considered it advisable to have the propeller taken off and the shaftd rawn in for examination, which was done, and after the repairs had been executed to the satisfaction of the Surveyors, she was finally surveyed and the usual declaration as to her seaworthiness was issued. The master attributed the accident to his having met an unusual and unexpected flood setting to the S.W. instead of an ebb-tide, which he alleged was particularly strong to have carried the vessel so far out of her course; he made an allowance of one knot an hour for the last of the flood, which he supposed ran three hours after high-water. The master affirmed that at 4 o'clock on the morning of the 23rd, he thought that the vessel ran 6½ miles on the course N. 61° W. from 3 A.M. and at 5 A.M. a farther 6½ miles in the same direction; the steamer had been set a little to the southward, having the wind on the starboard beam, and at 6 o'clock he considered he was in 8 fathoms, distant 6½ miles, on the same course from 5 A.M. The master stated that he was rather puzzled to find that he was from 4 to 5-30 A.M. in deep water; he had no confidence in his chart, because on a line from Linjah bearing S. 61° E. and distant 4½ miles, there was only one sounding of 9 fathoms given for a distance of 14 miles; from his experience of those waters there certainly was deep water, *i.e.*, 10 fathoms, 6 miles outside of Linjah. The man who was at the wheel from 12 P.M. to 4 A.M. swore that the wind was strong, and the vessel sheered 2° to his right and 1° or 2° towards his left, and he found it difficult to keep her straight when steering by hand gear. There was one man on the look-out forward on the bows, one at the wheel, and the first officer on watch; and at the time of the casualty one man was furling the topsail and two others at the bridge hauling in the lead. The man at the wheel asserted that the steamer's course at 4 A.M. was N. 57° W. by the steering compass; at that time there was nothing in sight, the wind was strong and a heavy sea was running; the vessel sheered 5° to starboard and 5° to port. At 6-20 A.M. he heard a man forward sing out that land was in sight, whereupon the first officer after answering "all right" ordered the helm to be put hard-a-starboard which was done, but to no avail, as then the vessel had grounded. The look-out man alleged that when he went forward at 4 o'clock on the morning in question there was dew falling as if raining; he reported to the first officer that he saw land ahead indistinctly, who replied *accha;* he made another report a little before 6-20 A.M., when the first officer again said *accha*, and just then the steamer struck the ground. The first officer accounted for the casualty by the strong northerly wind which had then been blowing for three or four days previously which caused a heavy S.W. current; he stated that the wind on the night of the 21st was W.S.W., and on the 22nd whilst going from Bandar 'Abbas it was West. The second engineer stated that he was on watch at 4 A.M. on the 23rd, the engines were then working well, going 42 revolutions, *i.e.*, about 7 knots, and the vessel continued at that rate of speed until 5-54 A.M. by the engine-room clock, and just then she struck the ground pretty heavily; the telegraph went at once from "full speed ahead" to "stop" and on to "full speed astern," all of which orders were obeyed immediately, and within a minute after the engines were reversed the casualty occurred. Also that between 10 and 11 o'clock on the night of the 23rd, the stokehole bulkhead gave way, having buckled and bilged out owing to the excessive straining of the steamer; that she did not make more water than the usual amount; that he examined the machinery at Basra and found a crack at the web of the crank shaft; that the crank was

cracked by the heavy concussion of the steamer whilst she was on shore; that her full speed was 68 revolutions, *i.e.*, about 11¼ knots at 65lb of steam; and that all the principal parts of the machinery were invariably examined before each voyage, assisted by the chief engineer, and found to be in order. The chief engineer positively stated that the steamer's shaft, the crank, the cross-head bearings, the slide valve, the piston and the boilers were examined by him before leaving Bombay on the last voyage, and there was no flaw whatever except a small reed showing the fibre of the iron fore and aft in the direction of the crank pin, and he reported it to the Company's Superintending Engineer; that it had been there for some time and marked; that the engines worked well; that there was no unusual strain whatever on the machinery before the accident; that on examination of the engines at Basra it was discovered that the after crank was broken halfway round the two fillets of the pin; and that the damage to the crank was caused by the concussion on the grounding of the steamer or in the getting her off the shore. Value of damage to the steamer *Pachumba*, ₹27,792; cargo, ₹5,028. No loss of life.

[A Special Court of Inquiry was held in the Fort Police Court, Bombay, by the Chief Presidency Magistrate, on the 24th, 25th, 26th, and 27th January and 1st February, under section 7 of Act V of 1883 (Indian Merchant Shipping Act), to investigate the circumstances connected with the stranding of the above vessel on Rás Shenas. The Court recorded on the 24th January that it appeared that this investigation was likely to involve the consideration of the question as to the cancellation or suspension of a certificate, it would therefore be necessary for them under section 13 of the above Act, to appoint two assessors (masters of steam-vessels); the Court thereupon appointed the masters of the steam-ships *Deepdale* and *Alcester* as assessors, and adjourned for the trial of the charge until the next day the 25th. On the 25th the Court farther recorded that having assembled pursuant to citation, the papers and correspondence relating to the case were read and filed, and copies of the statement of the case upon which this investigation had been directed were furnished to the master and first officer of the *Pachumba*. The Government Prosecutor then briefly opened the case, after which the witnesses were examined, and the Court adjourned for farther evidence to the 26th. On that day, after farther witnesses were examined, the Court observed that having considered the evidence, it seemed that there were sufficient grounds for framing charges against the master of having, by his own act and default, caused the stranding of the British steam-ship *Pachumba*. A copy of the statement upon which such charge was framed, and of the charge itself was then handed to the master, and the Court adjourned for the trial of the charge until the following day (the 27th). The Court thereupon framed a charge against the master, charging him as follows:—That he on the 23rd day of December, whilst in charge of the steamer *Pachumba*, and proceeding towards Linjah in the Persian Gulf, did commit a wrongful act or default in proceeding on the course and at the speed he did after having obtained soundings in 8 fathoms at 6 A.M., the weather then being dark and hazy, and without having verified his position since 10-20 o'clock the previous night by any landmark or by reliable soundings. The Court handed a copy of the charge to the master, who stated that he should like to consider his reply, when the Court adjourned to the 27th, to enable the master to proceed with his defence. On that day, on the conclusion of the evidence of all the witnesses, the President asked the accused whether, having heard the evidence, he wished to say anything in his defence; the accused thereupon asked to be allowed to read a written statement, and on permission being given he did so. He stated that—"as to the charges preferred against me I plead not guilty. Precautionary measures were taken in going at a very reduced rate of speed, a little more than half-speed, as the *Pachumba* steamed 11½ knots

an hour. When 8 fathoms soundings were reported to me at 6, I gave orders to stow the foretopsail preparatory to my getting to my anchorage, which according to my calculation and soundings was about five miles distant. To that portion of the charge which states that I had not verified my position since 10-20 o'clock of the previous night, I beg to call the attention of the Court to the soundings at 2-30 A.M. From that I had ample verification that the vessel was nothing to the southward of her course at that time. The courses steered to this point, soundings and distance run, were such as to give me confidence in my assumed position. From that point I allowed for the tide as shown by the chart which I did not get, but which, on the contrary, was running in the opposite direction with exceptional force, thereby causing the grounding of the vessel. I contend, and such contention can be substantiated by a reference to the log-books of the British India Steam Navigation, and the Bombay and Persian Steam Navigation Companys' steamers, or indeed any steam-ship navigating in the Persian Gulf, or from the examination of a master used to the Gulf trade and frequenting the Gulf of Linjah, that at 8 fathoms nothing is to be dreaded off that port, provided the distance and current are fairly and accurately known, and nothing unusual as to the weather had been experienced. And it was not customary in small, light-draughted steamers to begin any preparation for anchoring at five miles from the anchorage. The *Pachumba* is about 231′ long, and usually draws between 14′ and 15′. The engines and anchoring gear are in perfect order, and from long practical experience each one of the crew knows his separate duty, so that the anchors could be got ready in about two minutes. Considering that on this voyage we are always running in and out of ports, and seldom in very deep water, I consider my orders, the courses steered, the lead kept going, and general precautions, as also my frequent presence on deck during the night and morning, disproves anything like a rash or negligent performance of my duties in command of a coasting steamer." The accused was present in Court during the whole of the proceedings, and had full opportunity of cross-examining the witnesses called by the prosecution and of making a defence. He called one witness, the master of the steam-ship *Mobile* belonging to the Bombay and Persian Steam Navigation Company. This witness stated that he had some 15 years' experience of the navigation of the Persian Gulf, and knew the port of Linjah; the soundings on approaching that port from the eastward were not to be relied upon in the chart used by the master of the *Pachumba*. He had called at Linjah more than 50 times from the eastward, and on using the lead he got casts at 8 fathoms, and afterwards at 19 fathoms. The Court then adjourned till the 1st February in order that they might consider their finding and order. From the evidence before the Court it was elicited that the steamer *Pachumba* left Bombay on the 15th December, bound for Basra, and reached Bandar 'Abbas on the 22nd; and proceeded again from that port at 4-50 P.M. of the same day, having on board 77 passengers, the mails, and about 500 tons of general cargo, consisting of rice, piece-goods, tobacco, &c; she was in nice trim, and drew 14′ 6″ forward and 14′ 7″ aft, her free board being between 4′ and 5′. After leaving Bandar 'Abbas the master stated that he set a course S.8° E., the correct magnetic course being S. 10° E.; he continued on that course till 6-30 P.M., when he altered it to S.47° W., there was half a degree of error on that course. He continued on that course till 10-20 P.M., when Henjám island was abeam, distant about 2½ to 3 miles. At that time he reduced the speed of the steamer from 8 to 7 knots as she was going too fast, and he wanted to make Linjah about 7 o'clock the next morning, and he altered the course to S. 65° W., correct magnetic. At 12 P.M., the second officer relieved the master, when he gave the second officer orders to call him at 3 o'clock the next morning (the 23rd) as he expected to be near Tanbe island about then, to heave the lead every half hour, and to call him if he got soundings and to keep a good look-out for Tanbe

island. The hand log was hove at midnight and showed 7 knots, and at half past 12 the foretopsail was set. The second officer obtained a sounding at 2-30 A.M., in 6 fathoms, which he at once reported to the master, who came on deck and had a look round. Further soundings were taken and no bottom was obtained at 8 fathoms, when the master ordered him to stand on the same course till 3 o'clock. At 3 A.M., no soundings could be got at 10 fathoms, and he then called the master. The master came on deck and had a look round with his glasses, after which he altered the course to N. 61° W., correct magnetic. Tanbe island was not visible. At 4 A.M., there was a fresh breeze from the N.E., and it was hazy and dark all round the horizon, the moon being slightly visible through passing clouds. The lead was kept going and soundings were struck at 10 fathoms at 4 o'clock by the second officer; the log was hove and showed $7\frac{1}{2}$ knots. The first officer relieved the second officer at 4 A.M., and received the course and orders to heave the lead every half hour, and was informed that soundings had been obtained at 10 fathoms at 4 o'clock; the second officer then went and saw the master and reported the soundings he obtained at 4 A.M. The master directed him to tell the first officer to let the master know if he got less than 10 fathoms, which the second officer did. At 4-30 A.M., soundings were obtained in 13 fathoms; at 5 A.M., in 13 fathoms; and at 5-30 A.M. in 13 fathoms. At that time the master came up and the first officer reported to him what soundings he had obtained; the master told him to keep a sharp look-out for the land. At 6 A.M., 8 fathoms was obtained, and the first officer reported it at once to the master, and directly afterwards he came upon the bridge. The first officer stated that "at about 4 o'clock on the morning of the 23rd, it was very hazy and dark round the horizon, and it continued so up to the time the steamer went ashore; the moon was not visible at 4 A.M.; it was clouded over. I did not see it at all that morning." At 6 A.M., the master came on the bridge and soundings at 8 fathoms were reported; he ordered the foretopsail to be taken in. At 6-10 A.M., 9 fathoms were reported, and at 6-20 A.M., 8 fathoms. At that time one of the men on the topsail yard reported land, and at the same time the master saw broken water ahead; he immediately gave orders to stop and put the engines full speed astern; those orders were promptly carried out, and within 2 minutes after that the vessel took the ground. No shock was felt because the steamer went ashore on sand and soft mud; soundings were taken round the vessel and 11′ were found forward and 4 fathoms aft. A bearing was taken of the southern end of Jebel Bistana, when it bore N.W. $\frac{1}{2}$ W., magnetic, and daylight broke about a quarter of an hour after the casualty happened. The master stated that "according to my bearing I was South of the point jutting out to the South of Rás Shenas on the chart, but in fact I ran ashore on that point which bore from me S.W. $\frac{1}{4}$ S.; that point must have extended farther out than appears on the chart; it must have been so to have had the point bearing from me as it did." The wind on the starboard side blew the vessel round on the beach, when the starboard anchor was then let go with 15 fathoms of chain. At 7 A.M., the master ordered a kedge anchor to be run out, but in consequence of the heavy sea the boat could not get round the bows of the steamer, and had to return alongside, and the kedge was afterwards lost. At 9 o'clock the sea and wind were rising and the sea washed over the vessel; she was taking water fore and aft; the engines had to be stopped as the sand was going through the circulating pipes, when the mails and passengers were landed without much difficulty at 10 A.M., in the steamer's boats. At noon the engines were started and were kept going until the tide left the vessel at 2 P.M.; they were again started at the night tide, and were kept going until 3 A. M. of the 24th. At 11 A. M. the engines were moving, and at 12 the master ordered the cargo to be jettisoned, when, after throwing overboard 334 packages, the vessel backed off at 1-30 P. M. and

proceeded to Linjah, where the passengers and mails were re-embarked. The Court observed that on the night of the 23rd, between 10 and 11 o'clock, the second engineer noticed that the stokehole bulkhead had given way; it had buckled out, caused in his opinion by the straining of the steamer. She made no more than her usual amount of water during the time she was aground, or afterwards during her passage up the Gulf and back to Bombay. The *Pachumba* proceeded on her voyage up the Persian Gulf towards Basra, where the engineers discovered the after crank had gone at the two fillets of the after crank pin, half round the two fillets of the pin. The vessel was surveyed by the master of the steam-ship *Maude*, and by the captain and chief engineer of H. M. S. *Philomel*, and they were of opinion that she was in a fit condition to continue her passage with the mails, cargo and the passengers. She afterwards proceeded on her voyage, and arrived at Bombay in due course, and was eventually put into dry dock and surveyed, when it was found that the damage done to the hull was very slight; the stokehole bulkhead was bulged up, the angle iron was broken; the lower pintle of the rudder was broken, and also in some places the cement in the bottom of the vessel; the engines and boilers were examined, and it was found that the after crank was badly flawed on both fillets of the pin, and that a new shaft would have to be fitted in. The Court recorded that the chief engineer was of opinion that the damage to the crank was caused by the concussion on the grounding of the steamer or in the getting her off the shore. The second engineer of the vessel was of opinion that such damage was caused by the heavy concussion of the vessel whilst she was ashore. The Engineer Surveyor to the port of Bombay who surveyed the *Pachumba* was of opinion that such damage might have been caused by the strain in trying to get the steamer off the ground; and the Superintending Engineer of the British India Steam Navigation Company was of opinion that such damage was caused when the vessel was ashore and the engines were working, because the bulkhead in the stokehole showed that the bottom of the steamer was coming up, and that would have caused the shaft to get out of line and would have thrown an under strain upon some particular part of it. The master stated that he marked off his course up to midnight of the 22nd, and that he thought she might touch the edge of the flat, and was not surprised at striking 6 fathoms. He came on deck at 3 o'clock and looked for Tanbe island, but could not see it owing to the horizon being hazy. He thought his position was North of the extreme North point of Tanb, distant 3½ to 4 miles, and he altered his course; he again went on deck at half past 5, as he thought that something might be in sight. It was hazy weather and he could not make out the land at all; the first officer reported having had 13 fathoms. He then considered that the vessel was getting off Linjah, where there was no sounding in the chart, and deep water; he compared the soundings found with those on the chart between half past 5 and 6 A.M. He expected to see the light hoisted by the Agent of the British India Steam Navigation Company at Linjah on the supposed date of arrival of the mail steamer at 5 o'clock that morning, but he was rather puzzled to find that he was an hour and a half in deep water. He had no confidence in his chart, as on a line drawn from Linjah bearing about S. 61° E., distant from Linjah 4½ miles, for a distance of 14½ miles there was *only one* sounding at 9 fathoms given but there certainly was deep water of over 10 fathoms at 6 miles distance outside of Linjah; if anything he had been set a little to the southward, having the wind on his starboard beam. At 6 o'clock he thought he was in 8 fathoms, Linjah bearing N. 61° W., distant 6½ miles. He accounted for the steamer having gone ashore because instead of getting an ebb-tide he experienced a strong flood, which must have been a particularly strong flood to have carried him so far out of his course. The Court recorded that one of the Nautical Assessors was of opinion that the master after passing in close proximity to Jazirat Tanbe could not see it owing to

the very hazy state of the atmosphere, ought to have been warned by this that it was not prudent to approach too close to the land near Linjah, the port to which the steamer was bound. He considered that instead of continuing to go the speed which he did until the last, he ought, when he went on deck at 5-30 A.M. on the 23rd, not only to have slowed down but stopped and heave the vessel to until daybreak at least, especially as the soundings he was getting from time to time did not agree with the course steered, and more especially as he and his own witnesses in their evidence stated that the soundings on the chart were not to be depended upon. He considered, with the above exception, the master by his frequent and often lengthened appearance on deck, and by his very frequent casts of the lead, seemed to have navigated the steamer in a careful and seamanlike manner. After the stranding of the vessel he also appeared to have used all possible means to refloat the *Pachumba,* and to have taken every care of the passengers, mails and cargo; the hull of the vessel had sustained but little or no damage. The breaking of the rudder pintle the assessor did not consider to have been caused by the grounding of the steamer, and he had very grave doubts about the flaw found in the crank shaft being caused by her striking the ground; indeed, the chief engineer's evidence on that point was anything but clear. He was of opinion that the master not only gave his evidence in a very straightforward way, but defended himself against the charge brought against him by the Court in a very able manner. The other Nautical Assessor was of opinion that the master had taken ordinary precaution in the navigation of the said vessel after leaving Bandar 'Abbas, having obtained his position by the bearing of the island of Henjám and by striking soundings on the edge of the flat at 2-30 o'clock on the morning of the 23rd, and considered from the courses steered, allowing for the tide as indicated by the chart produced in Court, were safe and prudent courses to steer; and further considered that the vessel was going at a reasonable speed, considering her supposed distance from the anchorage at Linjah and the state of the weather. The casualty the Nautical Assessor attributed to a strong S.W. set, of which there was no indication given on the chart nor yet in the Gulf direction; the frequent appearance of the master on deck in the opinion of the assessor fully proved that no negligence on his part had occurred. After the accident the master seemed to have used every available appliance to refloat her, and had farther given his evidence in this investigation in a very straightforward and seamanlike manner. The Court recorded that they framed a charge against the master of the *Pachumba* to which he urged in defence that precautionary measures were taken in going at a very reduced rate of speed; that he stowed the foretopsail; that at 2-30 A.M. by soundings he had ample verification that his vessel was nothing to the southward of his course; that at that time the courses, the soundings and distances gave him confidence in his assumed position; that subsequently he allowed for the tide as shown by the chart; that at 8 fathoms off the port of Linjah nothing was to be dreaded provided the distance and currents were fairly known, and no unusual weather had been experienced; that in light-draughted coasting steamers no preparations were made for anchoring at 5 miles from the anchorage; that the anchors could be got ready in about two minutes; and that he did not perform his duties rashly or negligently. The accused called the master of the steam-ship *Mobile,* who stated that he had 15 years' experience in the navigation of the Persian Gulf, and had called at Linjah more than 50 times from the eastward; that the soundings on the chart on approaching Linjah from the eastward used by the master were not to be relied upon, and that he had soundings at 8 fathoms and afterwards at 19 fathoms. After a careful consideration of the evidence, the Court had come to the conclusion that the stranding of the steam-ship *Pachumba* on the morning of the 23rd December on a point about 6½ miles to the S.W. of Linjah was caused by an unusual and unexpected tide setting to the S.W.;

that whilst she was on the ground or in the attempt to get her off her machinery was materially damaged; that the master was attentive to his duties; that the compasses were attended to and the log and lead regularly hove; that he had no reason to expect such a tide as the vessel fell in with; that from the evidence of the accused, and the master of the steam-ship *Mobile*, it would appear the chart which was being used was incorrect off Linjah, and that a Gut of deep water existed off Linjah to the eastward; that the master adopted proper means to get the steamer off the ground; and that he deserved credit for the prompt manner in which he landed the passengers and mails and provided for their safety. Still the Court were of opinion that, considering the dark and hazy state of the morning; that no land was visible; that the supposed position of the vessel was only 6 or 7 miles distant from Linjah at about 6 A.M., and that daylight would break in an hour, it would have been more prudent on the part of the master to have slowed down or stopped his engines until daylight before attempting to make Linjah, and the Court therefore considered that the master deserved censure. The Court under the circumstances severely reprimanded the master and accordingly returned to him his certificate.]

[*Note by the Registrar of Wrecks.*—The gut of deep water was expressly referred to in the Sailing Directions (Persian Gulf Pilot) page 173, and the peculiarity of the deepening of the water as the shore was approached. The peculiarity of the ebb-tide setting to the westward had been noted at page 12 of the directions. The Admiralty chart shows the gut of deep water clearly.]

357. The British iron screw steamer WESTMEATH [of Sunderland, 2,095 tons register, official number 87332], from Singapur to New York, with a general cargo and 3 passengers on board. At 9 P.M. on the 24th December, when in latitude 13° N., longitude 57° E. (Arabian sea), the steamer met with an accident to her machinery, the boiler tubes giving way; cause not reported The weather was fine and clear and the sea smooth, with a calm N.E. wind. She put into Aden for coaling and repairs; after being detained for 52 hours she resumed her voyage. Value of damage to the steamer, cargo, and machinery, R2,000. No loss of life.

358. The British iron screw steamer SAM WELLER [of London, 964 tons register, official number 70383], from Maulmain to Bombay, with a cargo of teak timber. On the 26th December, the steamer was lying at anchor in Múpún bight, Salween or Maulmain river (Burma coast), loading a cargo of teak timber for Bombay; at 10-30 A.M. there being a strong ebb-tide, the weather fine and clear, and the wind calm, the vessel dragged her anchors and went ashore. At 4 P.M., on the flood-tide making, the steamer got off without discharging her cargo, and was safely anchored in deep water again. She was aground for 5 hours. No damage to the *Sam Weller*. No loss of cargo. No loss of life. (The official return in this case had not been received at this Department by the Marine Authorities at Maulmain, although application for it had been made.)

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